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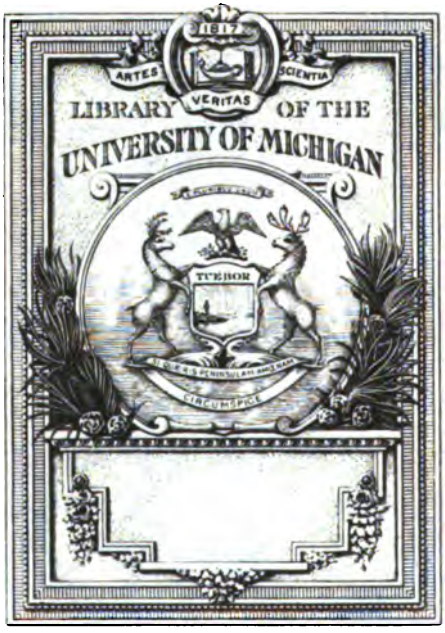
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HUNT'S

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

ESTABLISHED BY FREEMAN HUNT IN 1839.

VOLUME FORTY-THREE.

FROM JULY TO DECEMBER, INCLUSIVE, 1860.

New York:
GEO. W. & JNO. A. WOOD, 82 NASSAU-STREET.
1860.

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INDEX TO VOLUME XLIII.,

FROM JULY TO DECEMBER, INCLUSIVE, 1860.

A.

Advertising, benefits of, illustrated..... 894
Africa, geographical discoveries in..... 154
African laborers in the French colonies. .. 355
Agriculture, statistics of
124, 257, 382, 506, 638, 703
" of Ohio 124
" of Wisconsin..... 126
" of France 257
Agricultural fairs for 1860..... 513
Alabama, insurance law of..... 621
" taxable property in..... 218
Alexandria, (Va.,) population of..... 516
America and Europe, finances of..... 478
American agriculture..... 383
" railroad enterprise in Brazil..... 685
" timber for ship building..... 288
" commerce, increase of 774
Amoor River, voyage down the 134
Anvil Rock, Cape Point, shoal near 484
Arctic expedition, the new..... 266
Assay office, New York, operations of
74, 212, 380, 459, 592, 718
Atmospheric telegraph..... 493
Austria, finances of..... 227, 474

B.

Baltimore, census returns of..... 648
" Maryland, debt of..... 595
" and Ohio Railroad, business of... 701
" and Ohio Road, business, &c., of. 759
Bangor to New Orleans, railway from 114
Bank bill, a lost..... 208
" profits of N. York city for last quarter. 344
" dividends of Boston, 1859 and 1860 ... 603
" State of Indiana, returns of..... 228, 463
" of Iowa, condition of..... 223
" of England, circulation of..... 222
" of France, returns of, for June & July. 471
Banking, currency, and finance, Journal of,
79, 218, 334, 468, 595, 722
Banks of U. S., returns of, to January, 1860 . 836
" New York city, quarterly returns 340
" of State of New York, condition of... 226
" of Virginia, condition of 224
" of Missouri, condition of..... 226
" of New Jersey, condition of..... 227
" of Wisconsin, returns of 464
Beet root sugar, product of the Zollverein... 94
Bills of exchange, rates of in New York,
73, 211, 328, 458, 590, 716
Blanket, origin of the name 270
Bonded warehouses in New York, private,
rates of storage in 487
Book trade, the..... 143, 271, 399, 527, 655, 775
Boots & shoes, imp'ts & exp'ts of, last 3 years 99
Boston bank returns, weekly,
81, 220, 337, 465, 599, 724
" Clearing-house Association, fourth annual report of 83
" bank dividends, 1859 and 1860..... 608
" taxable property of..... 463
" population and growth of..... 644
" trade of, for April, 1860 100
" wool trade for six years..... 345
" and Charlestown, commerce of..... 741
" in 1860 772

Brain, wear and tare of, in modern life..... 515
Brattleboro, Vt., commercial industry of 292
Brazil; its trade and finances.....50, 167
" railroad enterprise in..... 685
" postage to, by French mail..... 749
Breach of warranty in marine policy..... 824
Breadstuffs, export of, from New York...406, 408
" export of, from United States .. 482
" trade of city of New York..... 613
British specie imports and exports 334
" exchange of cotton goods for cotton. 352
" Cotton Supply Association..... 640
" factory operatives, condition of..... 494
" exportations for 1859, value of..... 92
" shipping, progress of..... 98
" imports and exports..... 236
" importations for 1859, value of 93
" trade returns for 1859..... 91
" merchant shipping..... 611
" Post-office returns last year.....101, 620
" trade with Russia 234
Brooklyn, L. I., finances of..... 475
" and Kings County, census of..... 768
Burning of cotton at sea..... 96
Burnt Coat Head, Bay of Fundy, light at.... 107
Business population of San Francisco..... 647
" excitement the stimulus of..... 135

C.

Calella, coast of Spain, fixed light at..... 108
California fruit orchard..... 643
" to New York via China..... 232
" crops of..... 643
" gold exports of, 3 years..... 95
" its political economy 705
Canada, receipts from customs duties in..... 84
" and U. States, trade between, 1859.. 99
" abolition of canal tolls in 115
Canadian and American tariffs..... 242
" reciprocity, effects of..... 355
Canal, St. Mary's, tonnage of..... 255
" tolls in Canada, abolition of..... 115
Canals of New York, receipts & expenditures
of, since commencement..... 760
" of New York, business of 701
Cannon ball, motion of..... 122
Cape of Good Hope, revolving light on..... 240
Cargoes, Cuban manifests of..... 366
Caustic soda, question of duty on, (law case) 205
" duty on, (treasury circular).... 865
Cays Paredon Grande, Cuba, fixed light at .. 108
Central Park, New York, commiss. report on 649
Certificate of origin..... 863
Ceylon, exports of, four years..... 96
Charter—bill of lading, &c., (law case)..... 69
" mutual covenants, (law case) 68
Chicago & South. cities, freight tariff betw'n. 618
Chile new treaty with 742
Chilian mint—new mines..... 474
China, population of 514
" exports to, for three years..... 350
Chinese silk imported to United States..... 350
Chincha Islands, guano export of..... 741
Charleston, dividends payable in 344
" exports of, quarter ending June. 358
Cincinnati imports and exports for 9 years.. 607
" valuation and taxation of..... 342

Cincinnati, river and rail freights at..... 616
" census returns of..... 646
" personal property in 85
" fires in, last seven years 103
Civita Vecchia and Anconia, new lights at... 859
Citron, duty on, (treasury circular) 743
Clearing-house Association of Boston, fourth annual report of 83
" operations of New York and London compared 464
" N. Y., transactions of, 6 years 729
Coal in England, product of..... 250
" mined in Ohio 499
" of Rhode Island 628
" trade of James River, Virginia..... 752
" its mechanical powers..... 756
Coffee and sugar production of Hayti..... 346
" " imported into Europe, 4 y'rs 97
" exported from Rio last 3 years..... 853
" exported from Rio to U. States, 1859.. 353
" exports of Jamaica, last 25 years ... 736
Coins of Japan, assay of 88
" of the United States..... 228
" of Japan..... 729
Collision, damages for, (law case) 68
Colombo, coast of Ceylon, light at..... 149
Commerce and the peerage..... 141
" and trade in olden time 771
Commercial chronicle and review, 71, 208, 326, 454, 587, 713
" regulations, 104, 242, 363, 487, 616, 742
" contract, action on, (law case).. 206
Connecticut, insurance law of 483
" railways, condition of 373
" railways..... 257
Contract, important action on..... 206
Cooling of metal..... 881
Copper mining in Cornwall..... 247
" from Lake Superior, product of 250
Copy books with printed headings, duty on. 366
Corn raised in Ohio..... 124
" exported from United States, 1845-60.. 411
Cornwall, copper mining in..... 247
Cost of recovering a debt 392
Cotton exp'ts from N. Y. & N. O. compared. 456
" British, Supply Association..... 640
" receipts at Mobile by railroad 632
" crop of United States, 1860 506
" manufactured from flax 628
" delivery of, (law case)..... 322
" goods exp'ted from Great Britain, 1859 852
" trade of England..... 354
" burned at sea last year..... 96
" manufacture in Scotland 627
" goods for cotton, British exchange of. 352
" manufacture in New England..... 378
" as an element of business for railroads 115
" spun in England 123
" manufactures 755
" crop of U. States for last 10 years..... 741
" production & consumption of, 20 y'rs. 740
" product of Texas 740
Creditor vs. debtor..... 267
Crops without manure 763
Cuba, sugar estates of 384
" & Porto Rico, comparative revenues of 349
" railroads of..... 112
" cash sales in, and 2 per cent discount. 87
" revenue of 605
" governors of, since 1511 390
Cuban inland mails..... 243
" manifests of cargoes..... 366
Currency of the United States..... 574
" of the Japanese..... 229
Customs duties, receipts of, in Canada 84
" of England last 4 years 87
" English..... 335

D.

Dead-letters, new law in regard to 101
Dead mens' shoes..... 522
Debt, cost of recovering a..... 392
" of State of North Carolina..... 225
" the end of..... 650
" of Russia..... 344
Delivery of cotton, action on, (law case) ... 322
Direct Southern trade with Europe..... 657
Discocient 136
Dividends payable in Charleston, S. C..... 344
" of N. Y. insur'nce cos., July, 1860. 361
" of Boston banks, 1859 and 1860 .. 603
Dover, N. Hampshire, commercial industry of 199

E.

Early hours..... 189
East India railways..... 591
Economical, rules for..... 139
Electric telegraph, progress of..... 492
Emigrants to United States, occupation of.. 769
Emigration from Great Britain..... 387
Emigration and pauperism..... 262
Employment for ladies..... 140
Engines, marine..... 255
England, cotton manufactures of..... 354
" wheat trade of..... 94
" circulation of Bank of..... 222
" marriage statistics of..... 264
" produce of coal in..... 250
" longevity in..... 129
" and United States, maritime relations between..... 682
English customs and duties for 4 years..... 87
" customs duties..... 335
" leather trade, failures in..... 468
" trade returns for 1859 91
Engraving on glass..... 375
Europe, direct Southern trade with..... 651
Europe and America, finances of..... 473
European States, trade and population of... 395
Exeter, N. H., commercial industry of..... 201
Expenditure, philosophy of..... 521
Exports—see "Com. Chron. and Review" each month; also name of place.
Express companies, liabilities of..... 7

F.

Factory operatives, (British,) wages of..... 494
Facts and figures..... 653
Failures in London, 1858-59..... 348
Farm, manuf. and mineral statistics of Wisconsin 196
Ferrum, or true iron..... 247
Fertilizers, increase in use of in Georgia.... 259
Financial heresies..... 317
Finances of Austria..... 227
" of New York city..... 79
Fire insurance dividends..... 484
Fire proof cloth, how manufactured..... 756
Fires in Cincinnati last seven years..... 103
Flax and silk, consumption of in G. Britain. 386
Flax cotton..... 258, 628
Florida railway, the..... 256
Flour trade of Brazil, from 1848 to 1860..... 97
" Virginia..... 230
Foreign ministers, entry and delivery of articles belonging to..... 741
Forests, their decrease..... 384
Forgery..... 806
France, Bank of, returns for June and July.. 471
" vineyards of..... 382
" imports and exports of wheat from. 404
" locomotive building in..... 505
" wine product of..... 606
" agriculture of..... 257
" parceling land in..... 385
" duty on wool in..... 104
" wheat trade of..... 94
Fraud in the revenue, (law case) 585
Frauds in trade..... 526
Freak of trade..... 898
Freight, tariff between Chicago and Southern cities 618

Freights from the West..... 500
" river and rail, at Cincinnati..... 616
French railways 759
Fruit orchards in California.. 648

G.

Galvanizing iron..... 626
Gas and oil, cheapness of compared 756
Gaslight companies of United States..... 379
" smoke from 630
Geographical discoveries in Eastern Africa.. 154
Georgia, population of 1859..... 260
" agriculture in..... 259
" pine forests of..... 445
" taxable property in..... 222
German population of United States..... 130
" railways, statistics of..... 367
Germany, tobacco growing in..... 851
Girard, Stephen, anecdote of..... 654
Glass, engraving on..... 375
Gold received from California and exported from New York weekly
73, 210, 320, 458, 591, 717
Gold and silver coinage at New Orleans branch mint 1859 and 1860..... 596
Gold and platina found in Missouri, analysis of 117
Gold exports of California three years. 95
Gold coast, customs on..... 142
Goodwin Sands, new buoy at..... 241
Grain ports of the lakes..... 735
Grape culture in Ohio..... 638
Great Britain, imports and exports of..... 236
" cotton manufactures of..... 354
" import of wheat and flour in.. 404
" merchant shipping of..... 611
" emigration from..... 387
Great Eastern, dimensions of..... 265
Greytown, bombardment of, (law case)..... 583
Gull Stream, England, revolving light in.... 859
Gutta percha, wherein it differs from caoutchouc..... 612
Guano export of the Chincha Islands..... 741

H.

Hamburg, trade of, fourteen years..... 612
Hats, woolen, duty on..... 618
Hayti, agriculture in..... 125
Havana, extracts from port regulations of... 105
Havre, shipping of goods to..... 207
Health insurance, humors of..... 623
Hides and leather, imports and exports of last three years..... 99
Holmes, Capt. Silas, obituary of..... 770
Human hair, duty on, (treas. circular)..... 366

I.

Ireland, east coast, new lighthouses on..... 745
Illinois, bank returns of..... 475
Imports—see "Com. Chron. and Review" each month; also name of place.
India, railways in..... 251
" opium trade of..... 318
Indian corn exported from U. S. 1845-60.... 411
Indiana State Bank, returns of 463
" " condition of..... 228
Indigo culture..... 126
Insurance, journal of .102, 237, 361, 483, 621, 746
" policies, (life,) valuation of
43, 147, 301, 426, 567, 692
" (marine,) scrip dividends..... 623
" scrip, (marine,) market price of.. 624
" dividends in New York, July, 1860 361
" dividends, (fire)..... 484
" companys of N. H., condition of.. 362
" law of Connecticut..... 488
" law of New Jersey..... 237
" law of Alabama 621
" laws of Maine. 748
" companies of N. Y., inquests in case of incendiarism..... 746
Interest, effect of war on rates of..... 209
Iowa, productions of for 1860..... 512
" exports of grain 1859 and 1860..... 476
" State Bank, condition of..... 225
Iron trade of Sweden..... 100
" produced in Pennsylvania, 1859..... 116
" bridges, origin of 498
" product of Pennsylvania..... 564
" railway, manufacture of..... 631
" galvanizing of..... 626
" from Lake Superior, produce of..... 250
" its chemical properties..... 247
" trade, the..... 122
" (railroad,) how it is made..... 754
" of Lake Superior..... 751

J.

Jamaica, commercial prosperity of..... 526
" life assurance of..... 748
James River and Kanawha Canal, business of for three years..... 762
James River, Va., coal trade..... 752
Japan, its resources, trade, and currency.... 60
" revenue of..... 224
" assay of the coins of..... 88
" coins of..... 729
Japanese currency, the..... 229
" silk worm..... 386
" trade 235
Java and Madeira, population of..... 138

K.

Kanawha and James River Canal, business of for three years..... 762
Kansas, population of..... 768
" railway enterprise in..... 757
Kelley's Island, Ohio, grape culture in..... 638
Key West negroes..... 525

L.

Lactometer, operations of..... 764
Labor value, changes in 249
" the condition of success..... 187
" no excellence without..... 393
Ladies, employment for..... 140
Lake tides..... 358
" vessels for ocean navigation..... 477
" Superior mines, produce of..... 250
" " iron..... 751
Lakes, disasters on, last four years..... 358
" tonnage of 1858-59..... 358
" ship building on..... 357
" grain ports of..... 735
Landscape plates, duty on..... 618
Last manufactory at Richmond..... 630
Lead tubing, silvering of..... 879
Leather trade of London, late failures in, 468, 596
" skins, classification of..... 120
" and hides, imports and exports of last three years..... 99
Life insurance policies, value of
43, 147, 301, 426, 567, 692
" " 104
" " laws of New York..... 102
" assurance in Jamaica..... 748
" duration of in our principal cities..... 133
Lights in Gulfs of Riga & Finl'nd, alteration of 239
Lille Feisteen, Norway, fixed light at..... 107
Living within one's means..... 141
Local dispatch posts, suppression of..... 860
Locomotives in France, No. of..... 505
" performance of..... 372
London failures 1858, 1859..... 348
" tobacco trade and consumption..... 654
" leather trade, recent failures in..... 596
Long Dock Tunnel, New Jersey, the..... 254
Longevity in England..... 129
Louisville, Ky., freights at..... 617
" " population of..... 768
" Canal, enlargement of..... 372

M.

Machine building, photography in..... 118
Mails, U. S. and London, closing of..... 749
Maine insurance laws of..... 748
Magnetic needle..... 699
Manchester operatives..... 629
Manufactures of Philadelphia..... 555
Manufacturing in Ohio..... 499
Margate Sand and North Foreland lighthouse 241
Marine insurance scrip dividends..... 623
" losses for May, 1860 103
" " 1859, 1860..... 486
" " for 1860..... 747
" insurance, when *deviation* allowable. 894
" " scrip, market price of..... 624
" engines..... 255
Marriage statistics of England..... 262
Marseilles, United States trade with..... 9
Maryland, population of in 1782..... 389
Memphis and Charleston Railroad..... 504
Mercantile miscellanies 184, 265, 390, 518, 649, 770
" law, journal of, 68, 205, 322, 450, 583, 710
" vigilance..... 268
Merino shirts, (imitation,) duty on..... 617
Merrill Shell Bank, coast of Mississippi, light-house at..... 359
Mexico, population and area of States of.. 138
Michigan, population of.....648, 767
Michigan Central Railroad, operations of for six years..... 253
Milk trade of New York city..... 612
Milk, preservation of..... 523
Milwaukee, population of..... 645
Mining, manufactures, and art, journal of 116, 245, 374, 494, 625 751
Minot's Ledge, Boston Bay, new light on.... 484
Mississippi, taxable property of..... 342
" dredging of the mouths of..... 351
Mississippi and St. Lawrence, valleys compared..... 437
Mississippi passes, rates of pilotage at..... 363
Missouri, analysis of gold and platina found in..... 117
Missouri banks, condition of..... 926
" " returns of..... 475
Minnesota State finances..... 85
" exports of grain 1859 and 1860... 476
" railway system..... 758
Mobile, cotton received at by railroad..... 632
" commerce of..... 480
Money, price of in New York each month 72, 210, 328, 457, 590, 715
" how to learn the value of..... 136
Montauk Point lighthouse..... 359
Mouths of the Mississippi, dredging of..... 851
Monuments of human labor..... 525
Motive Power, a new..... 249

N.

Nautical intelligence..106, 238, 356, 485, 614, 744
Naval architecture—wave line 490
Navy of the United States, report on..... 347
Nebraska city, growth of..... 590
Needle, the magnetic..... 629
New England, cotton manufacture in..... 378
New Hampshire fire ins. company, returns of 362
" savings banks of..... 473
" census returns of.. 647
" banks, condition of 734
New Haven Railroad, or Schuyler frauds.... 586
New Jersey insurance law..... 237
" banks, condition of..... 237
New Orleans bank returns, weekly 82, 220, 338, 466, 601, 726
" export of two last years..... 353
" river freights at..... 616
" commerce of..... 477
" branch mint, operations of, 1859 and 1860..... 596
New Orleans, Jackson, and Great Northern Railroad..... 684
New York city bank returns, weekly 81, 219, 337, 465, 599, 724
" city banks, quarterly returns to June 25th..... 340
New York city, finances of..... 79
" " value of real and personal property in..... 218
New York city, trade in breadstuffs..... 613
" " quarterly bank returns...219, 783
" " milk trade of..... 612
" " imports and exports for forty years..... 607
New York city railroads, business of..... 373
" assay-office..74, 212, 330, 459, 592, 718
" harbor, condition of..... 856
" savings banks, condition of..... 86
" arrivals and clearances at last ten years..... 615
New York, export of breadstuffs from...406, 408
" valuation of property in..... 80
" Central Park, commiss. report on 649
" assay-office, operations of..... 472
" Chamber of Commerce and the Japanese, conference between..... 285
New York bay encroachments..... 414
" to California via China..... 232
" private bonded warehouse, rates of storage in..... 487
New York, condition of banks of State of... 226
" State, wealth of by counties..... 597
" railroads, condition of.....369, 503
" ins. co.'s, dividends for July, 1860 361
" life insurance laws of..... 102
" State, valuation and taxes of.N.. 731
" canals, business of..... 701
" Central Railroad, business of.... 701
" and Erie Railroad, business of... 701
" canals, receipts and expenditures of since commencement..... 760
New South Wales, banking in..... 470
Newspaper window at London post-office... 360
" enterprise..... 750
North Carolina, debt of..... 225
North Pacific, whale trade of..... 89
Northwest, trade of..... 476

O.

Ocean steamers, loss of..... 91
Ohio, census returns of..... 646
" grape culture in..... 688
" agriculture of..... 124
" canals, receipts of two years..... 255
" fleece wool, value of twenty years..... 345
" taxable property of..... 475
" prices of wool 1840 to 1859..... 96
" manufacturing in..... 499
" population of..... 766
One price..... 397
Opium trade of India..... 318

P.

Packet mail service, British..... 620
Parceling land in France..... 395
Paris, enlargement of..... 133
" gossip, a bit of..... 270
Pauperism and emigration..... 262
Pawnbroking, statistics of New York..... 348
Pegging shoes by steam..... 246
Pennsylvania, iron produced in 1859..... 116
" cities, census returns for..... 387
" rock oil..... 626
" iron product of..... 564
" Central Railroad, business of.. 701
Perfumery, manufacture of..... 753
Personal property in Cincinnati..... 85
" " and real estate in city of N. York, value of..... 218
Philadelphia bank returns, weekly 81, 220, 338, 466, 600, 725

Philadelphia, its manufactures..... 555
Pilotage Mississippi passes, rates of..... 63
Pine forests of Georgia..... 445
Pittsburg bank returns, weekly
22, 221, 389, 467, 601, 727
Plaques, duty on, (treas. circular)..... 365
Platina and gold found in Missouri, analysis of..... 117
Political economy of California..... 705
Population, statistics..129, 260, 387, 514, 646, 766
" of Georgia, 1859..... 260
" and area of States of Mexico.... 133
" of Turkey..... 264
Port Fairy, Australia, new light at..... 106
Port regulations of Havana..... 105
Portland bay, Australia, light at..... 107
" Me., banks of..... 781
Porto Rico & Cuba, comparative revenues of 349
Portsmouth, (Maine,) business prospects of . 472
Postage, prepayment of by stamps..... 244
" to Brazil by French mail..... 749
Postal department....101, 243, 360, 492, 619, 749
Post-office mails, U. S. and London, closing of 749
Poverty in New York, statistics of..... 343
Prices and wages, effects of usury on..... 178
Profitable investments..... 519
Providence bank returns, weekly
83, 232, 340, 468, 603, 728
Purchase money unpaid, due on articles of agreement..... 458

R.

Rags, uses made of..... 377
Railroad, canal, and steamboat statistics
110, 251, 367, 500, 631, 757
Railroad co., the Southwestern of Georgia.. 634
" receipts for July..... 371
" enterprise for September..... 687
" " in Brazil..... 635
" receipts for June, 1860..... 254
" stock, rise in last four months..... 588
" of New York, condition of.....869, 508
" of New York city, business of..... 873
" cotton as an element of business for 115
" prophecy in regard to..... 634
" of Cuba..... 112
" stocks, fluctuations of since June... 714
" iron, how it is made..... 754
Railway from Bangor to New Orleans..... 114
" iron, manufacture of..... 681
" statistics..... 370
" rails, wear of..... 505
" system of Minesota..... 759
" enterprise..... 757
Railways of Connecticut..... 251
" " condition of..... 373
" of Germany, condition of..... 367
" of East India..... 501
" in India..... 251
" in Texas..... 683
Real and personal property in city of N. Y . 218
Recreation 267
Respectability the test of..... 524
Restless and dissatisfied, the..... 398
Review, historical and critical, of the different systems of social philosophy...19, 275, 580, 659
Rhode Island, census returns of..... 646
" coal..... 628
Richmond, Va., inspection of flour in 4 years 231
" tobacco trade..... 736
Riga and Finland, alteration of lights in..... 239
Rio de Janeiro, exports of coffee from, last three years..... 358
Rio Grande, Brazil, fixed light at..... 746
Rock oil of Pennsylvania, produce of..... 626
Rockabill, coast of Ireland, lighthouse at.... 109
Rockingham, Vt., commercial industry of... 203
Russia, emigration from to Turkey..... 517
" British trade with..... 284
" debt of..... 344
" Co. and Stade dues, duties levied by. 671
Roxbury, Mass., its population..... 139
Russian aggression and extension..... 517
" emancipation..... 388

S.

Saddlery—polished bits, duty on..... 744
Sailors: what they are & what they should be 652
Salt, its distribution through the world..... 119
San Francisco, business population of..... 647
Sandwich Islands, finances of 470
" trade of 480
" post-office 619
Savings banks of New York, condition of...: 86
" of New Hampshire..... 478
Scales, improvement in..... 119
Schuyler frauds and New Haven Railroad .. 586
Scotland, cotton manufacture in..... 627
" west coast, new lighthouses on.... 744
Seamen's wages, action to recover, (law case) 69
Semi-steel, manufacture of..... 496
Set-off Point, Newark Bay, discontinuance of light on 485
Ship, the first large 270
Ship-building, American timber for..... 238
" on the lakes..... 357
" modern..... 142
Ships, recent sales of..... 614
Shipping of New York, arrivals & clearances 615
" interest of United States..... 614
" British merchant..... 611
" goods to Havre 207
Shoe factory, a Southern 248
Shoes, pegging of, by steam 246
Siam, tariff of 364
Silk imported from China. 1858-59..... 350
" establishment, description of a 269
" and flax, consumption of, in G. Britain. 386
" worm, the Japanese..... 386
Silks and servant girls..... 523
Silvering lead tubing..... 379
Simplon to be tunneled, the 258
Smoke from gas-lights 630
Social philosophy, review, historical & critical of the different systems of.....19, 275, 580, 659
Southern trade, direct, with Europe..... 651
" shoe factory, a..... 248
" cities & Chicago, freight tariff bet'wn 618
Southwestern Railroad of Georgia..... 634
Spain: its trade and agriculture..... 481
" population of..... 645
Specie, British, imports & exports, 6 months 334
Spindles, in England, and cotton supply 123
St. Anthony, Minnesota, population of..... 769
St. Joseph, Missouri, in 1850 and 1860..... 723
St. Louis bank returns, weekly,
83, 221, 339, 468, 602, 727
" debt and finances of..... 722
St. Lawrence & Mississippi valleys compared 437
St. Mary's Canal, tonnage of 255
Stade duties, & dues levied by the Russia Co. 671
Stamps and envelops issued last 6 months... 750
Steam marine of the United States 110
" tonnage, British, increase of 98
" boilers, method of testing strength of. 371
Steamships, wear and tear of..... 187
Stephen Girard, anecdote of 654
Stocks, railroad, fluctuation of, since June .. 714
Storage & labor on unclaimed goods, rates of 487
Sugar product of the world for 1859..... 95
" estates of Cuba 384
" and coffee imported into Europe, 4 yr's 97
" and coffee production of Hayti..... 346
" and rum exports of Jamaica..... 736
Sweden, iron trade of..... 100

T.

Tariff, important opinion on, (law case)..... 205
" of Siam 364
Tariffs, Canadian and American 242
Taxes and valuation of New York State..... 731
Telegraph and press, the 244

Taxable property of Georgia..... 222
" in Alabama 218
" of Mississippi..... 342
" of Cincinnati 342
" property of Texas 223
Telegraphs, atmospheric..... 493
" progress of..... 492
Tennessee, debt of 734
Temperature of blood in the human system. 121
Texas, taxable property of..... 223
" railways in 683
" cotton product of..... 740
Thimble manufacturing 880
Things we send abroad,..... 498
Tidal motive powers 249
Timber land, decrease of..... 384
Tin, sources of its supply 120
" its uses and commerce..... 874
" from whence obtained..... 245
Tobacco and the Spanish Government 100
" growth and consumption of 351
" trade and consumption of London.. 654
" some statistics concerning 396
" trade of Virginia..... 736
Tonnage of the lakes, 1858-59..... 358
Toronto, Canada, assessed valuation of..... 86
Towing, damages for, (law case)..... 70
Town insurance laws of New York... 103
Trade and commerce, statistics of, 29, 230, 345, 476, 606, 735
" mark, imitation of, (law case) 450
" mark, assignment of right to a 450
" winds—evaporation in their circuit... 697
Trading too much..... 391
Tunnel, the Long Dock, of New Jersey 254
Turkey, population of 264

U.

United States mint, Phila'phia, operations of, 74, 212, 329, 459, 592, 718
" cotton crops for 1860 506
" production of wheat in, '40-60. 412
" export of breadstuffs from.... 482
" corn exported from, 1845-60 .. 411
" banks returns to January, 1860 336
" and Canada, trade betw'n, 1859 99
" trade with Marseilles..... 98
" shipping interest of 614
" currency of..... 574
" coins 228
" navy, report on..... 347
" steam marine of..... 110
" German population of..... 130
" gas-light companies of..... 379
" cotton crop & average value of last ten years 741
United States & England, maritime relations between 682
" and Chile, new treaty between 742
Unclaimed goods in private warehouses in New York, rates of..... 487
Units of power..... 119
Unpaid purchase money due on articles of agreement..... 458
Usury, effects of, on prices and wages..... 178

V.

Valuation of life insurance policies, 43, 147, 301, 426, 567, 692
Varne shoal, straits of Dover, floating light at 109
Vineyards of France..... 882
Virginia banks, condition of..... 224
" flour trade 230
" tobacco trade of..... 736
"Vuelta Abajo and Vuelta Arriba" 270

W.

Wages, the true scale of..... 249
Wall paper, manufacture of..... 376
War, effect of, on rates of interest..... 209
" statistics..... 80
Weather, rule for predicting..... 128
Weight of various articles of produce 526
West, freights from..... 500
" and England, new route between..... 358
" our trade with..... 701
West Indies, sugar product of, 1859..... 95
" immigration into... 388
" exports of, last 25 years..... 786
Western waters, loss of vessels on..... 486
Whale trade of the North Pacific..... 89
Wheat trade of France and England..... 94
" and flour imported into Great Britain 404
" trade—foreign demand..... 403
" its history and culture 509
" production of, in U. States, 1845-60... 412
" stock of, in United States, July 12th.. 354
Wine product of France..... 606
Wisconsin exports of grain, 1859-60..... 476
" products of..... 126
" banks, returns of..... 464
Wool, duty on, in France 104
" price of, in Ohio, 1840 to 1859..... 96
" trade of Boston, six years..... 345
Woolen hats, duty on 618
" goods imported to U. States, 3 years 346

Z.

Zollverein, beet-root sugar, product of..... 94
Zurich, manufacture of silk at..... 386

HUNT'S

MERCHANTS' MAGAZINE.

Established July, 1839, by Freeman Hunt.

VOLUME XLIII. JULY, 1860. NUMBER I.

CONTENTS OF NO. I., VOL. XLIII.

ARTICLES.

ART. PAGE

I. REVIEW, HISTORICAL AND CRITICAL, OF THE DIFFERENT SYSTEMS OF SOCIAL PHILOSOPHY; OR, INTRODUCTION TO A MORE COMPREHENSIVE SYSTEM. PART VII. A Historical Glance at the Career of the Arabians during the period of their greatest Enlightenment—Their Contributions to General Science briefly noticed—Five General Observations suggested by their Distinguished Career as Leaders of Civilization—Mohammedanism and the Ideas it Embodies, that are of importance as Principles in Sociology Incidentally Considered—Some General Remarks on the Condition of the Mohammedan Nations Incidentally Made 19

II. VALUATION OF LIFE INSURANCE POLICIES. By Prof. C. F. McCay, of Georgia 48

III. BRAZIL: ITS TRADE AND FINANCES 50

IV. JAPAN: ITS RESOURCES, TRADE, AND CURRENCY. Arrival of Ambassadors—Course of Modern Trade—Situation of Japan—Size—Population—Divisions—Surface of the Country—Agriculture—Productions—Minerals—Manufactures—Large Capital—Itsigoya—Inland Commerce—Discovery—Dutch Intrigues—British Attempts—American Mission—Perry's Arrival—Treaties—English Treaties—Lord Elgin—Embassy to United States—Mr. Alcock—Government Organization—Feudal Princes—Tradition Adverse to Trade—Non-Intercourse—Multiplication of Treaties—Relative Value of Metals—Treaty Stipulations of Lord Elgin's Treaty—Effect upon Currency—Embarrassment of Government—Export of Gold—Location of Merchants—Yokuhama—Success of the Location—Trade—State of General Efforts 60

JOURNAL OF MERCANTILE LAW.

Collision—Mutual Fault—Pleadings—Jurisdiction.—Charter—Mutual Covenants—Jurisdiction 68
Charter—Bill of Lading—Cargo on Deck—Jettison—Jurisdiction.—Seamen's Wages—Unauthorized Employment 69
Towing—Damages.—Jurisdiction—Towing Contract 70

COMMERCIAL CHRONICLE AND REVIEW.

Decline in the Value of Money—Decline Abroad—The Invasion of Sicily—Stagnation of Business—Falling Prices—Crops of Food Promise Well—Checks Merchants Here—Large Exports—Cotton—Breadstuffs—No Enterprise to Demand Capital—Capital and Travel Tend to New York—Popular Attractions—Central Park—Great Eastern—Prince of Wales—Japanese Embassy—Travelers to Europe—Table of Numbers—Rapid Increase—Importance of the Expenditure—Steam Facilities—Influence on Hotels and Business—Crystal Palace Excitement—Its Results—Plethora of Money—Table of Rates—Cheaper than Ever—Paper Better Character—Bank Discounts—Rates of Exchange—Shipments of Specie—Table of—Fall of Money in London—Supplies of Specie—Assay-Office—Mint—Coinage—Law of 1853—Silver Coinage—Great Supply of Currency—Effect upon Bank Circulation—Drives Out Gold—Redundancy of Cheap Money—Imports 71-78

PAGE

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

City of New York Finances 79
War Statistics 80
City Weekly Bank Returns—Banks of New York, Boston, Philadelphia, New Orleans, Pittsburg, St. Louis, Providence 81
Fourth Annual Report of the Boston Clearing-house Association 83
Revenue from Customs in Upper and Lower Canada 84
Minnesota State Finances.—Cincinnati Personal Property 85
Savings Banks of New York.—Valuation of Toronto 86
The Coins of Japan.—English Customs & Duties.—Cash Sales in Cuba & two per cent Discount 87
Assay of the Coins of Japan 88

STATISTICS OF TRADE AND COMMERCE.

Whale Trade of the North Pacific 89
Loss of Ocean Steamers.—British Trade Returns for the year ended December 31, 1859 91
Wheat Trade.—Beet Root Sugar Product in the Zollverein 94
Gold Exports of California.—Sugar Product, 1859 95
Burning of Cotton at Sea.—Ohio Wool Prices.—Ceylon Exports of Produce, Oct. 1 to Sept. 30. 96
Brazil Trade.—Sugar and Coffee in Europe 97
Progress of British Shipping—Rapid increase of Steam Tonnage 98
United States Trade with Marseilles 98
The United States and Canada 99
Imports and Exports of Boots and Shoes, Leather and Hides, for the last three fiscal years 99
Iron Trade in Sweden.—Trade of Boston for April.—Tobacco and the Spanish Government ... 100

POSTAL DEPARTMENT.

Dead-letters—New Law.—The British Post-office 101

JOURNAL OF INSURANCE.

Life Insurance Laws of New York 102
Town Insurance Laws of New York.—Cincinnati Fires—Paid Department 103
Recapitulation of Losses in May, 1860 103
Life Insurance 104

COMMERCIAL REGULATIONS.

Duty on Wool in France 104
Extracts from the Port Regulations of Havana 105

NAUTICAL INTELLIGENCE.

Light in Port Fairy, Australia 106
Light in Portland Bay, Australia.—Fixed Light on Lille Feisteen Island, Norway 107
Fixed Light at Burnt Coat Head, Bay of Fundy 107
Fixed Light at Calella, Coast of Spain 108
Fixed and Flashing Light on Cayo Paredon Grande, Cuba 108
Rockabill Lighthouse, and St. John's Point Light, Ireland 109
Temporary Light at Colombo, East Coast of Ceylon 109
Intended Floating Light, near the Varne Shoal, Straits of Dover 109

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

Steam Marine of the United States 110
Railroads in Cuba 112
Railway from Bangor to New Orleans 114
Cotton and Railroads.—Abolition of Canal Tolls in Canada 115

JOURNAL OF MINING, MANUFACTURES, AND ART.

Iron Production for 1859 in Eastern Pennsylvania 116
Analysis of Platina and Gold in Missouri 117
Photography in Machine Building.—Saw Capacity 118
Progress—Scales.—Units of Power.—Salt 119
Tin.—Classification of Leather Skins 120
Temperature 121
The Iron Trade.—The Motion of a Cannon Ball.—Vapor 122
Spindles in England and Cotton Supply 123

STATISTICS OF AGRICULTURE, &c.

Agriculture of Ohio 124
Agriculture in Hayti 125
Products of Wisconsin.—Indigo Culture 126
Rule for Predicting the Weather 128

STATISTICS OF POPULATION, &c.

Longevity in England 129
German Population 130
Roxbury and its Population 132
Population and Area of the States of Mexico.—Duration of Life 133
Population of Java and Madura.—Enlargement of Paris 133

MERCANTILE MISCELLANIES.

A Voyage down the Amoor 134
Excitement the Stimulus of Business 135
Discontent.—Learn the Value of Money 136
Wear and Tear of Steamships.—Labor, the Condition of Success 137
Early Hours.—Rules for the Economical 139
Employments for Ladies 140
Commerce and the Peerage.—Living within Means 141
Customs on the Gold Coast.—Modern Shipbuilding 142

THE BOOK TRADE.

Notices of new Books or new Editions 142–144

HUNT'S

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

JULY, 1860.

Art. I.—REVIEW, HISTORICAL AND CRITICAL, OF THE DIFFERENT SYSTEMS OF SOCIAL PHILOSOPHY:*

OR, INTRODUCTION TO A MORE COMPREHENSIVE SYSTEM.

PART VII.

A HISTORICAL GLANCE AT THE CAREER OF THE ARABIANS DURING THE PERIOD OF THEIR GREATEST ENLIGHTENMENT—THEIR CONTRIBUTIONS TO GENERAL SCIENCE BRIEFLY NOTICED—FIVE GENERAL OBSERVATIONS SUGGESTED BY THEIR DISTINGUISHED CAREER AS LEADERS OF CIVILIZATION—MOHAMMEDANISM AND THE IDEAS IT EMBODIES, THAT ARE OF IMPORTANCE AS PRINCIPLES IN SOCIOLOGY INCIDENTALLY CONSIDERED—SOME GENERAL REMARKS ON THE CONDITION OF THE MOHAMMEDAN NATIONS INCIDENTALLY MADE.

THE sun of civilization had not set on Europe quite three centuries, before it rose again with intense brilliancy upon the Asiatic portion of the Caucasian world. The Arabians, deriving, as it were, a new birth from the inspirations of their great prophet, for the first time appeared in the world as conquerors in arms and instructors in science.†

It has been customary, hitherto, with those who have undertaken to present, at least from an European stand point, a historical sketch of the progress of the human race, whether in relation to the general development of the race, or the particular development of any art or science, to ignore the part which has been played by the Arabians, or at least, to re-

* Entered according to an act of Congress, in the year 1859, by GEO. W. & JNO. A. WOOD, in the Clerk's Office of the District Court of the United States, for the southern district of New York.

† The time here fixed upon as the hour of sunrise for the *second day* or well defined epoch of human civilization, is the year of Christ 749, when the first Caliph of the Abbasside dynasty ascended the throne. This, counting from the hour already fixed upon for the sunset of the first civilization, or A. D. 476, gives an intervening night of 273 years, just about 2¾ centuries, or, as we might designate it, on the *dial plate* of history, 2¾ hours. Some might prefer to fix the time in the year 763, when Almanser, the second Caliph of the Abbasside dynasty, removed the seat of Saracen empire from Damascus to Bagdad. But in fixing the time in A. D. 749, we have followed the example of the Arabians themselves, who date the luster of their civilization from the first Caliph of the Abbasside dynasty.

gard it as comparatively insignificant—to treat it as a mere *episode* in the great *epic* of history, as a subordinate piece, or *by-play*, rather than one of the prominent *acts*, in the grand *drama* of human development. Thus Bacon, in his Advancement of Learning, when speaking of the three "visitations" of learning which he recognizes, regards them as the Grecian, Roman, and present one, almost totally ignoring the Arabian contribution to general science.* Tennemann, too, that great comprehensive German scholar, in his "Manual of the History of Philosophy," while dividing that history into three periods—the first extending from Thales to Charlemagne, or (as he perhaps less happily has it,) to John of Damascus, which comprehends the interval between the year 600, before Christ, and 800 after him, or *fourteen* centuries—the *second* period from the year A. D. 800 to 1500—or *seven* centuries—the *third* period from A. D. 1500 onward, embracing the present century,†—Tennemann, while thus partitioning the History of Philosophy, assigns to the Arabians an altogether subordinate place in that history, noticing them of course as appertaining to the second period.

It would ill become an inquirer, who, like the author of the present undertaking, is disposed to regard all the various developments in human history as inseparable parts of one connected and consistent development, the proper relations of which are undiscoverable to human intelligence, and to consider all the several sciences as but the different parts of one inseparably connected, all-adhering system, and who believes that all sciences, and more especially, that most complex of them all, the science of Sociology, the science of human society, into which they all converge, and which, more particularly than any other science, is dependent on and derives its nourishment from all the rest, are languishing under the isolated attempts which have been hitherto made to master them separately, and without a due consideration of their vital connections with all other sciences—nay, an inquirer whose leading idea, in undertaking the vast design in which he is now engaged, is to bring to bear upon the science of Sociology, and its many and long-vexed problems, observations taken from the stand points of all the sciences, and more especially from the whole past of human history—it would ill become such an inquirer, while taking a historical glance at the prominent developments in human history, with a view to extracting valuable suggestions, relating to the philosophy of society, to fall into the hitherto prevalent habit of ignoring, or even of lightly regarding, the great Arabian development.

According to the plan upon which the historical sketch here presented, therefore, is predicated, the whole course of human development, or that of the *vanguard* of humanity and its great *central column*, the Caucasian race, is divided into three main periods, (as by Bacon and Tennemann,) the *first* period or day embracing the Egyptian, Grecian, and Roman civilizations, which are respectively regarded as only different periods of the same day, and ending with the downfall of Roman civilization in Italy in the fifth century—the *second* period embracing the epoch of Arabian or Saracen civilization, beginning with the latter part of the eighth century, and ending with the overthrow of the Arabian dominion in Asia,

* See Advancement of Learning, edition of 1806, *passim*.

† See Tennemann's Manual of the History of Philosophy, as translated by Rev. Arthur Johnson, and revised by J. R. Morell, *passim*.

about the middle of the thirteenth century—the *third* period beginning with the sixteenth century, or thereabout, and extending onward through the present times. These three periods may be respectively termed the *first*, *second*, and *third* periods of human civilization, or the *ancient*, *medieval*, and *modern*; and they are separated from each other by broad and well defined lines or belts of darkness, extending through nearly three centuries, which may aptly be compared, as they usually are, to hours of night, hours indeed which are not to be regarded, by any means, as valueless, in the lifetime of the race, but only as of comparatively far less value than the hours of light.

This plan ignores rather the middle age of European civilization than the Saracenic civilization, and follows, in its course, the *greater* rather than the *lesser* light. Indeed, why should we direct our attention so fixedly upon the so called "scholastic philosophy" of Europe, in the middle age, with its profitless disquisitions upon those most unprofitable of all the unprofitable problems of Metaphysics, those relating to the doctrine of *essence*, a philosophy of which Thomas Aquinas, Duns Scotus, Roger Bacon, Roscellin, and Abelard were almost the only distinguished lights, and bestow only casual notice upon the corresponding period of Arabian philosophy, concerning which, it has been said, "the names alone of the Saracen philosophers, mathematicians, astronomers, physicians, botanists, chemists, and architects, who illustrated this period of Arab history, would fill a volume."*

What though we know too little of the Arabian science and learning of this period to be able to speak of them with reliable particularity! It is at least desirable that we should recognize their value, and that attention should be turned in this, the right direction, for discovering the most valuable contributions of the human mind, during this period, to the *stores* of general knowledge. Enough is known to assure us that the contributions of the Arabian mind, during this period, were of a distinguished character, and have exerted an important influence on the art and science of the present day.

The Arabians were distinguished proficients in medicine, the inventors of chemistry, the perfectors, if not inventors, of Algebra, and either the inventors, or the medium for transmission, from India to Europe, of those arithmetical characters, commonly known as the *Arabic numerals*, now universally employed among Europeans, and which serve almost as important a purpose in arithmetical science, as the alphabet serves in the science of language. It was only in mathematical, physical, and metaphysical science, however, that the Arabians appear to have made any noteworthy attainments. In Ethics and Sociology they do not appear to have contributed anything valuable, at least in a scientific form, or of a speculative nature. Their genius was indeed, and doubtless still is, like that of the French, peculiarly adapted to the *exact* sciences. Carlyle has styled them, "Oriental Italians,"† and probably with very great propriety. But this they have, in common with the French and Italians, but more especially the former, of whom it is more especially the characteristic, that their turn is for the *exact*, rather than the *non-exact*, sciences,

* McCullogh's Geographical Dictionary—title Arabia.

† The language of Carlyle is, "The Persians are called the French of the East; we will call the Arabs Oriental Italians." See Carlyle on Heroes, p. 43, in the lecture entitled "The Hero as Prophet."

to which latter, Ethics and Sociology pre-eminently belong. The genius for these two orders of sciences, as we have before had occasion to remark, concerning the talent for speculation and practice, are rarely found combined, in an eminent degree, either in individuals or nations;* so that the possession of the one may be fairly and scientifically argued against that of the other, and the renowned eminence of the Arabians, as *mathematicians*, may be relied upon with some degree of confidence, (in the absence of more direct evidence) as proof that they were deficient as *Sociologists*. For thus it is that the French, while they are illustrious as mathematicians, and in all the sciences to which the exact principles of mathematics may be applied, furnish us in Sociology little else than the delusive extravagancies of Fourier, St. Simon, Proudhon, and Condorcet, the lofty generalities of Comte, and the mawkish puerilities of Louis Blanc, relieved only occasionally, and at long intervals, by the profound, yet practical and really valuable observations of Montesquieu and Guizot—omitting all notice of the contributions of Say, and other French savans, to the science of mere Political Economy.

Tennemann, in his History of Philosophy, has, however, justly remarked, for one speaking from the stand-point of an European, "after all, the records of Arabic philosophy have been too little investigated to enable us to speak of them with sufficient certainty."† And this remark may be as correctly made, concerning the Social Philosophy of the Arabians, as concerning their more fundamental philosophy, to which Tennemann referred, the metaphysical. Yet, for the reason just stated, and for those before adverted to, in this review,‡ arising out of the despotic character of government among the Asiatics generally, and the incompatibility of such governments with the spirit of free inquiry in matters appertaining to the philosophy of society, it may be pretty safely concluded, that Europeans are none the less wise in social science because of their limited acquaintance with the learning and speculative philosophy of the Arabians.§

It does not, however, follow, as we have before had occasion to remark, upon Roman Sociology, because the Arabians have not contributed any speculative or theoretical ideas of special value in Sociology, that nothing valuable to social science is to be derived from an attentive observation, either of the actual structure of their society, or of their extraordinary career as conquerors and discoverers in science. Indeed, he must be but a limited proficient in Sociology, who could not obtain some valuable observations in relation to the philosophy of society from a review of the extraordinary career of the Arabians, during the period of their greatest enlightenment, when they proved themselves the leaders of the human race, in art and science, as well as in political dominion, during five centuries.

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* See part v. of this Review, that on Roman Sociology, vol. xlii., p. 276, of *Merchants' Magazine.*

† See Tennemann's Manual of the History of Philosophy, translated by Johnson, and revised by Morell, section 257.

‡ See part iii., of this Review in *Merchants' Magazine* for December, 1859, vol. xli., p 673.

§ The author of this review cannot lay claim to any special illumination on Arabian science or general literature. He is unacquainted, like most Europeans and Americans, with the Arabic language, and has not even enjoyed the privilege of many authorities now quite accessible to European students, in Latin at least—not even such well known authorities as Abulfaragius and Abulfeda. The authorities on which he has had mainly to rely, concerning the Arabians, are Gibbon's Decline and Fall of the Roman Empire, Hallam's Middle Ages, Crichton's History of Arabia, Irving's Life of Mahomet and his Successors, Tennemann's History of Philosophy, the Encyclopedia Britannica, McCullogh's Geographical Dictionary, and the Koran, as translated by Sale.

Their religion alone, Mohammedanism, the outcome of the Arabians, would of itself constitute a theme worthy of a searching examination, in relation to its bearings on the social condition. Much of what it would be important to say on this point, however, has been already said, in remarking on the influence of Christianity.* For Mohammedanism is not only, like Christianity, a system of religion, and therefore subject to all the remarks already made concerning the influence of religion in general, but it is a system of religion very nearly akin to Christianity—in fact, a sort of spurious Christianity.†

All religions are indeed very nearly allied, and may be regarded as fundamentally the same, notwithstanding the ignorant impression so prevalent to the contrary. *They are all expressions of the deep inward sense, in man, of dependence on a Higher Power, whom it is his duty and interest to strive to propitiate by reverence and homage, by the performance of some acts, and abstinence from others.* And as some religions are more intimately allied than others, so are the Christian and Mohammedan—the great Arabian prophet and reformer having evidently borrowed many of his most valuable ideas and precepts from Christianity, and the general scope of the two systems being very much the same, and essentially differing only in some important points of morality. In short, Mohammedanism may not only be regarded as a spurious form of Christianity, but it may furthermore and essentially be regarded as Christianity, so far as the Arabians are capable of receiving it.

For this reason, therefore, that we have already, in our remarks on Christianity, said much of what it would be proper to say concerning Mohammedanism, and for another, namely, that what remains to be said, concerning the latter system, and as peculiar to it, may as well be noticed incidentally, and as appurtenant to other more general remarks, we shall subordinate the remarks which it is proposed here to make, on the Mohammedan religion, to others of a more general character in relation to the Arabians. We shall not make Mohammedanism so prominent an object of consideration as we have made Christianity.

Had we considered Christianity as it is now proposed to consider Mohammedanism, we should have regarded it as an incident to the Hebrew nation, and should have appended our remarks upon it to what we had briefly said before, concerning that people, while taking a brief historical glance at the different Asiatic nations, of the Caucasian family, that had flourished before the Grecian age.‡ But Christianity is too important a development in human history to be thus subordinated, consistently with any rules of philosophical or scientific propriety. It is too general, too comprehensive, too cosmopolitan, in its scope and spirit. The Hebrews would much more properly be regarded as an appendage of Christianity, than Christianity as an appendage of the Hebrews.

Christianity, moreover, has all the characteristics of a movement of the

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* See part vi. of this review, in May number of *Merchants' Magazine* for 1860.

† To many poorly informed persons this remark may appear extraordinary. But to those in Christendom, who doubt the resemblance and near affiliation of Mohammedanism as laid down by Mohammed, to Christianty as taught by Christ, we have only to say, *read the Koran*, and observe how it not only inculcates many of the same noble precepts as Christ, and repeats the same ideas, narrations, and traditions that are to be found in the old Hebrew Scriptures, but with what habitual and uniform reverence it speaks of Jesus and many others characters revered by Christians, as Abraham, Moses, and the prophets.

‡ See part iii. of this review, in *Merchants' Magazine* for December, 1859, vol. xli., p. 672.

race, rather than of any one nation, in which respect it differs alike from Mohammedanism and Judaism. Mohammedanism may be properly regarded as the outcome of the Arabians—Christianity as the outcome of humanity—of the highest type of the human genus; Mohammedanism, too, represents well the prominent traits of the Arabians, but Christianity does not so well represent those of the Hebrews. It is too catholic, too fraternal in its spirit, stretching out its generous arms to embrace the whole human family, while Judaism is contracted, selfish, egotistical, exclusive, and fenced round with the idea that its people are "the elect," that they are "the chosen people of God," and that if it be well with them, and their household, it matters not about the condition of other kindreds and peoples. This much must suffice as to the reasons for subordinating our remarks on Mohammedanism to more general ones on the Arabians, notwithstanding we have given to Christianity a distinct and paramount consideration, without subordinating it either to the Hebrew nation, out of which it issued, or the Roman, under whose empire it was developed and established as a dominant power in the world.

All the remarks which it is proposed here to make concerning the Arabians, as suggested by their extraordinary career as leaders of civilization, may be comprehended under these five general observations:—I. Their career illustrates forcibly the influence of religion, or the sentiment of religiosity, on society, and even more strikingly than the career of Christianity. II. It not only illustrates forcibly the influence of religion, as a sociological force, but it reveals, very strikingly, the great fundamental truth that there are sociological influences more fundamental than religion, and tending to determine the character of a nation's religion, and among them the influence of race, or ethnological causes. III. Their religion itself, Mohammedanism, suggests and embodies some valuable principles in Sociology. IV. Their condition, and that of other nations who have adopted their religion, illustrates very clearly, and more so than that of any other nations, the importance of well organized government, and the real nature of the evils of bad government. V. It reveals and strikingly illustrates the great sociological law, that the higher the organism of the society, or body politic, the more liable it is to derangement, disease, and death.

Concerning these general observations upon the career of the Arabians, and as a reason why a review of Arabian history, in reference to its bearings on social science, is the more worthy of attention, it is proper to remark, that while these observations, or most of them, are abundantly illustrated by other examples, they are nowhere to be found so strikingly and unmistakably illustrated, and on so large a scale, as by that of the Arabians, and some other nations that have adopted their religion.

I. *The career of the Arabians, as leaders of civilization, forcibly illustrates the influence of religion, or the sentiment of religiosity, as a sociological force, and even more forcibly than the career of Christianity.* As it is by extreme cases that we best illustrate principles, so also it is by extraordinary occurrences which stand out in bold relief from the back-ground of common places, or the ordinary course of human events, that principles are most clearly and strikingly exemplified. It is for this reason that the career of the Arabians, as leaders of civilization, in which they were impelled by the motive of propagating the Mohammedan religion, illustrates, more forcibly than does the history of Christianity, the influence of the

religious sentiment upon the movements and general character of society. The influence of Christianity was gradually and quietly exerted—that of Mohammedanism suddenly and violently. Christianity followed the ordinary course of human events, wisely seeking, everywhere, to accommodate itself to the existing order of things—Mohammedanism forcibly and rudely broke in upon established institution, proclaiming, everywhere, as the only alternatives it offered to mankind, death, tribute, or the Koran. Christianity, as Gibbon expresses it, "gently insinuated itself" into human society, and so quietly and imperceptibly established its dominions as to leave it a matter of some doubt what influence it has exerted on human affairs, and whether, indeed, it has exerted any very important influence. Mohammedanism swept over the world like a raging torrent, or devastating tornado, and so sudden were the revolutions and transformations it occasioned, that, whatever doubt it may have left as to the utility of its influence, it has left none as to the marked and decided character of that influence.

Before the time of Mohammed the Arabians had never played any prominent part in human affairs. They had scarcely been recognized as having any place in the family of nations. They had lain there, in their secluded abodes, almost as much a blank on the face of the moral or humanitarian world, as their own sandy and rocky wastes, on the surface of the natural. But when this extraordinary man, with his high inspirations and deep religious sentiment, through the aid of favorable circumstances, by combining the various religions which had been long scattered over the Arabian peninsula into one,* and infusing into that his own strong convictions and enthusiastic impressions, had thoroughly aroused the religious sentiment of the Arabians, and fired them with the idea that there is a God who rules in the affairs of this world, who superintends the actions of men, and requires of every man to do his duty, and that this God had spoken to them, through the lips of Mohammed, commanding them to renounce idolatry, acknowledge the Koran, and go forth, as warriors, to propagate and spread the gospel it proclaimed, the long-dormant energies of the Arabian character were aroused—Arabia for the first time started up into life—its long-despised people went forth to proselytize and to conquer, and the empires of the world were swept before them like chaff driven before some mighty wind. Nor did the Arabians, under the influence of their religious frenzy, become conquerors and destroyers only, but regenerators and preservers also. They who had before been semi-barbarous became the leaders of civilization. They who had been scarcely acquainted with letters became instructors in science.

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* It is abundantly clear that the Mohammedan religion is, to a very great extent, the result of a fusion of the various religious ideas which had before prevailed, more or less extensively, in Arabia—the Sabian, (or ancient religion of the Arabians,) the Magian, (or ancient religion of the Persians,) the Jewish, and Christian. Its most valuable ideas are undoubtedly taken from the Jewish and Christian systems. In fact, no entirely new system, either of religion, ethics, or politics, has ever sprung up in the world, at least within the historic period. Every new system is but the grafting of new ideas upon previously existing and generally received ones. This is true even of the Christian religion itself. There are no great *leaps* in the course of nature, but a steady, onward course of *progressive development*, disturbed at times, it is true, by oscillation and violence; but in the main, a steady, onward course of *progressive development*, either towards perfection or destruction—a *progressive development* of the principle of *death*, as well as of life, of *decay*, as well as *reproduction*, and not, as certain short-sighted theorists suppose, a progressive development only of the principle of life and perfection—theorists who, in their narrow scope of observation, regard only God, the Creator and Preserver, and ignore God, the Destroyer.

If such be the power of the religious sentiment, when impelled and guided by such erroneous ideas of man's highest duties, may we not obtain therefrom a tolerably reliable estimate of the momentum of that power when impelled and guided by more just ideas of duty? If such be the influence of the religion of force, of conquest, and of war, may we not reasonably argue a potential influence also for the religion of peace, gentleness, and love? If such have been the achievements of the Saracen warriors and heroes of the Koran, in their endeavors to propagate the religion of Mohammed, who shall estimate the influence, on the condition of human society, of those far nobler heroes enlisted under the sacred banner of Christ—those armies of heroic women, not without a few noble escorts of men, *the true soldiers of the cross*—whose warfare consists in deeds of charity and words of love, who devote their lives to the noble purpose of alleviating the distresses of their fellow mortals, and who go forth into the by-ways of the world, and into the lanes and alleys of its crowded cities, to seek out the lowly, neglected, and oppressed of THE GREAT FAMILY, and minister to their wants!

Nor is the power of the religious principle conspicuously illustrated only in the *achievements* of the Arabians, either as conquerors in arms or instructors in science, but also in their *non-achievements*, or that apathy and indifference to enterprise which so remarkably distinguish them and other nations that have adopted the Mohammedan religion. For all of those nations, and more especially the Arabians and Turks, are scarcely less distinguished for their activity in war than for their indolence in peace, and their indifference to the arts and enterprises of peace. For the Arabians, even in the period of their greatest enlightenment, and when they were acting as the leaders of civilization, under the renowned Caliphs of Bagdad, were much more conspicuous for their attainments in science than their achievements in art, and excelled in contemplative rather than in practical philosophy.

This fact is doubtless attributable largely to influence of *race*, or *ethnological* causes, but as undoubtedly, in a great measure also, to influence of religion. For the Mohommedan religion, while it is well calculated to inspire that enthusiasm in war which carried the Arabians so triumphantly through their brilliant career as conquerors, is also equally as well calculated to foster a spirit of indolence and apathy in regard to the ordinary enterprises of life, and, indeed, in regard to the enterprises of war, except when prosecuted under some violent and short-lived impulse.

No religion in the world inculcates so strong a belief in the superintendence of the Supreme Being, so implicit a faith in his *predestination* of the course of human events, or, as some might express it, so blind a trust in *fate*, as that of Mohammed; and among no nation do we find those national traits, which may be regarded as the legitimate offspring of such religious belief, so conspicuously illustrated as among those who have embraced the Mohammedan religion. Accordingly, Crichton, in his admirable history of Arabia, in allusion to that great and overshadowing tenet of Mohammedanism—*belief in predestination*—has justly observed, "Over all the Mohammedan nations of the present day the tenet still reigns in its pristine force, and its effects are visible in that torpid inactivity of mind which supersedes the exercise of reason and industry, and considers every attempt to change the common order of things as a

crime not far removed from rebellion against the established laws of the Deity."*

From this observation of Crichton, it is apparent that religion may have injurious as well as beneficial effects, and that a religion which, like that of Mohammed, inculcates so implicit a trust in God as to impair materially the self-reliance of man, and to paralyze his energies, must, to that extent, or in that respect, exert very pernicious influences on the general character of a people, and the condition of their society.

II. *The career of the Arabians, as leaders of civilization, not only forcibly illustrates the influence of the religious sentiment, as a sociological force, but it reveals, very strikingly, the great fundamental truth, that there are sociological influences more fundamental than that of religion, and tending to form the religion itself, and among these, influence of race, or ethnological causes.*

It had been of little avail to the Arabians that Jesus of Nazareth, "the meek and lowly Nazarene," had preached his pure and heavenly gospel in their immediate neighborhood. In vain for them had he called on men to renounce and abjure the ignoble traits of their nature, and to be guided only by the nobler and more divine principles that are in them. In vain for them had he inculcated the religion of self-denial, of chastity, of humility, of gentleness, long suffering, and forbearance. In vain for them had he attested his divine mission by a life of the most exalted purity, and by speaking "as surely never man spake before." In vain for them had he offered up his life upon the cross, that the blood of a martyr so precious might prove the seed of a church designed to be so holy. They had heard, but had heeded not. Other nations had embraced his gospel, so far, indeed, as even they were capable of embracing it. The Greeks, the Romans, nay, the rude barbarians of Northern Europe had recognized him as the great messenger from heaven to earth, and the true INTERMEDIATE between the human and divine. But the Arabians were not particularly moved by his life or doctrines. It was not by such doctrines as Christ promulgated that the religious sentiment of the Arabians was to be aroused or powerfully stimulated. Christianity was not the religion to take root in their hearts. It was not the creed with which the leading traits of their character could affinitize. It was too spiritual, supersensual.

But when Mohammed appeared and announced that all the revelations from God to man, before his time, were but preparatory to the one he had to communicate; that Abraham, Moses, and Jesus were indeed great prophets and divinely commissioned teachers, but only empowered to make way for the great and final gospel which he was commissioned to promulgate; that the Arabians, not less than the Israelites, were a peculiarly favored people of Allah; that to this people Allah had at last vouchsafed to speak, through the illustrious house of Hashem, in the person of Mohammed, in order to make known to all mankind the true religion, and the right road from earth to heaven; when, moreover, the religion promulgated by this Mohammed proved to be a religion of *outward* performances rather than of *inward* righteousness—a religion which proclaimed its kingdom to be of this world, as well as of the world to come—a religion which tolerated the spirit of retaliation and violence,

* See Crichton's History of Arabia, chap. vii.

which allowed and even commanded proselytism by the sword, rather than by gentleness and patient perseverence in well doing—a religion which enjoined almsgiving on a people naturally generous, justice on a people naturally magnanimous, warfare in behalf of religion on a people naturally warlike and habitually predatory, abstinence from wine on a people not much addicted to drunkenness, and occasional fasting on a people by their modes of life habitually inured to great privations, and which, beyond these requirements, allowed great latitude of self-indulgence—a religion which, instead of enjoining chastity and discountenancing all the carnal appetites, allowed its votaries great license, in respect to those appetites, in this world and unbounded indulgence in the next—a religion, in short, which granted to its followers many rewards in this life, and offered them a heaven in the life to come—not the chaste and spiritual heaven of Jesus, in which "there is neither marrying nor giving in mariage," but a heaven of the most transporting sensuality—a heaven in which to the wives of the pious Moslem in this world were to be superadded *seventy-two* wives of the nymphs of Paradise, celestial virgins whose charms and beauties were to exceed all terrestial conceptions; when this religion was proclaimed, and its divine authority was attested by a few extraordinary victories and some supposed prodigies, then it was that the great passionate heart of the Arabians was fired with religious enthusiasm; then it was that Arabia started up with a shout which startled the nations, and from her arid plains and sandy wastes there went forth a spirit of religious frenzy that swept the kingdoms of the world like chaff before it.

Other illustrations of this great truth, *as to the dependence of the religion on the race*, are to be found in human history, but none so striking or so unmistakable as this. We may see it strongly enough exemplified in the very slow progress made by Europeans in their efforts to Christianize the Hindoos, Chinese, Siamese, and some other nations. Out of the *hundred millions* of Hindoos not so many as a *hundred thousand* converts to Christianity, or one in a thousand, can be shown as the fruit of all the long and strenuous efforts that have been made to Christianize them. Nor is it probable that future efforts in this direction will be much more successful. "Men do not gather grapes of thorns nor figs of thistles." Neither will they gather the fruit of Christianity from Hindoo character.

It is difficult to say what progress may not be *nominally* made in Christianizing the Hindoos, or any other nation, *by accommodating the religion to the people*, as has been practiced everywhere, perhaps, instead of bringing the people up to the true standard of the religion. Neither is it very easy to say how far the operation of concurring causes, extending through ages, by gradually changing or modifying the inherent traits of the Hindoos, or any other people, may fit them to receive the religion and high toned morality of Christ. But this much may be regarded as certain, that so long as the Hindoos continue to possess those fundamental traits which they now possess, in short, while they continue to be essentially Hindoos, the gospel of Christ, as it was preached by its great author and his early apostles, will never be cordially embraced by them. This is a truth which, however ungrateful it may be to many pious souls in Christendom, it is well that all should thoughtfully consider. For it is one of the many ramifications of a great fundamental truth or principle in social philosophy, of very extensive applications, and which has

been hitherto altogether too little considered by those who have undertaken the arduous office of *propagandist*, either in religion or politics.

Our review, historical and critical, of the different systems of social philosophy, and of the various ideas relative thereto, which are to be gathered, (either as having been theoretically or practically developed,) from a survey of the past in human history, has, thus far, already brought under our consideration some of the most fundamental and profound principles of social science. We have already had occasion repeatedly to observe that POLITICAL CAUSES, to which superficialists in social philosophy attach such undue importance, are not, by any means, among the more fundamental causes which tend to determine the social condition, and that there are clearly discernible and manifest causes, (to say nothing of more occult and obscure ones,) that are much more fundamental in their influence on the condition of society. We have also had occasion to observe, while taking a review of Christianity and its influence on human society, that RELIGION is one of those more fundamental and manifest causes. And now, while reviewing the career of the Arabians, as leaders of civilization, and their religious manifestations, we have occasion to observe that there are causes yet more fundamental than religion operating upon the condition of a people, and tending to determine their religious as well as their political destiny, and that among the most prominent of these causes is that of RACE. It only remains that we should have occasion to contemplate the causes which tend to *mould* or *modify race*, and we shall have pushed our inquiries as far as it is permitted to man to penetrate into the philosophy of society, and taken a glance, very partial and imperfect, to be sure, at the whole scope of causes operating upon the existing condition of any state of human society, and all of which are to be attentively considered by him who would arrive at a correct and complete solution of any of its vexed problems.

It is not within the province of this review to consider the applications of the principles which it may develop, at least beyond the extent that may be necessary clearly to illustrate the principles. Yet the principle just developed, as to the dependence of the religion and political *status* of a people upon their *race*, or *ethnological traits*, suggests so ready and complete a refutation to some of those multitudinous schemes of *social revolution*, which are among the pests of the present age, that we may well be excused for making a slight digression from the steady forward march of our review, in order to make this practical application.

Among the multitudinous schemes for social revolution and regeneration, which have been spawned out of the prolific womb of modern quackery, none is perhaps more entitled to notice, alike for the amiable character of its projector, and the valuable truths that are to be found incorporated with its great fundamental errors, than that of Robert Owen as developed in his work entitled, "The Book of the New Moral World, containing the Rational System of Society." In this scheme, Mr. Owen recognizes plainly enough, though not in so many words, the great truth, *that in order to reform society, it is necessary to reform man;* and thus far he shows himself far wiser than many of the quacks in social science. But he commits the error, (which is one, but not the only one, of the grand fallacies of his scheme,) of vastly underestimating the *difficulty of reforming men*, which is, after all, the real difficulty of all these projects

for the amelioration of the human condition. Mr. Owen indulges his fancy with the vain conceit, spun out into an elaborate tissue of the wildest *dream work*, that by a system of instruction and education, grounded on what he terms "true first principles,"* or more particularly on a knowledge of the real nature of man—a system of instruction and education of which he claims to be the great APOSTLE—it is practicable, nay quite easy, to make men "rational," to use his favorite expression; in other words, to make them wise, truly wise, and, of course, also truly virtuous, since, obviously enough, no man is truly rational, or wise, who is not also virtuous.

This great difficulty, of making men wise and virtuous, which the greatest philosophers and *virtuosi* of all ages, the most renowned lawgivers and reformers in religion, have grappled with in vain, Mr. Owen, (like many of our would-be reformers of society,) weakly imagines that he can easily master by his plan of instruction and education—without any exception on account of the vast diversities of individual and national character, and whatever may be the fundamental traits either of the individual, or the *race*, which latter are but the fundamental traits or peculiarities of the individual developed and expanded into those of the nation, or family of nations. But how appears this vain dream, this puerile conceit of Robert Owen, in view of the great, indisputable facts of human history which we have been considering in this and the foregoing part of our review, and more particularly in view of that significant fact which has just passed under our review, as to the almost total failure of Christianity to make any impression on the Arabians, to say nothing of the very slight impression it has really made upon any part of mankind?

If the sublime religion of Jesus Christ, with its transporting hope of an unending heaven, and its awful threatening of an eternal hell, concurring with the most beautiful and noble sentiments of morality, to constrain men to that course of exalted virtue which Mr. Owen thinks it so easy, upon his plan, to school them into, has almost totally failed to reform men—nay, if it has fallen still-born and impotent at the feet of whole nations, as the Arabians, for example, because of their inherent and fundamental unfitness to appreciate and embrace it, how preposterous is the conceit of Robert Owen, that he can exalt men to that high standard of moral excellence by his plan of instruction and education, which, whatever merits it may possess, proposes no higher nor stronger sanction than that of an earthly paradise—a short-lived heaven in this fleeting and transitory life! For Robert Owen does not, like his brother impiric in social science, William Godwin, of an earlier date, promise to men the attriubtes of terrestial demi-gods, and immortality on earth, as a consequence of coming under his treatment, and consenting to take a box or two of his "infallible pills," which, of course, like other sublime reformers of their kind, they both offer to mankind, "freely and without price." Mr. Owen only promises to men an earthly paradise—colestial bliss while life lasts, or from birth to death—which promise he makes upon condition only that they will allow him, the aforesaid Robert Owen, utterly to demolish the existing framework of human society, everywhere, from top to bottom, and to reconstruct it upon the plan suggested by "the ALL-

* See Owen's New Moral World, part v., chap. 4, p. 164, of first American edition; also, see same work *passim* for the same idea.

GLORIOUS SCIENCE of the influences of circumstance over human character."* But enough of this digression, and of these mawkish puerilities in social philosophy, at least for the present.

III. *The religion of the Arabians, Mohammedanism, suggests and embodies in itself some valuable principles in Sociology.* No duty is more strongly and frequently enjoined in the Koran, or more prominently recognized, by all pious Mohammedans, as one of the grand cardinal requirements of their religion, than that of Almsgiving. Indeed, this great duty is more distinctly and forcibly set forth in the religion of Mohammed than in that of Jesus or Moses. It is true, indeed, that wherever Jesus alludes to the poor, it is with the utmost compassion and tenderness, and that he repeatedly enjoins upon the rich the duty of giving freely, out of their abundance, to the needy, as where he says to a certain rich man, who was inquiring what he should do to be worthy of the kingdom of heaven, "sell all that thou hast and give to the poor." But the injunctions to charity in the gospel of Jesus are, for the most part, as in the instance just cited, very general, and somewhat too vague and indeterminate for practical use. It has been the misfortune of Christianity, moreover, that the injunctions to *almsgiving* have been grossly misapplied by an interested priestly order, who have far more zealously inculcated the idea of giving to an abstraction, called "the church," than to the suffering poor of God's great household, the human family; and that, in point of fact, the poor have been too often robbed in order to maintain in affluence a pampered, and not unfrequently corrupt, church aristocracy. But the injunctions of the Koran to *almsgiving* are too frequent and imperative to admit of any misapprehension or misrepresentation of this kind. Everywhere throughout THE BOOK of Mohammed, and in almost every chapter of it, this noble-hearted Arabian speaks out, in the name of God, commanding men to be charitable to the poor, and to deal justly with the captive, the widow, and orphan. Indeed, this seems to be the great controlling idea of Mohammed's practical morality, as the *unity and spirituality* of God, with the consequent abomination of *idolatry*, constitute the predominant idea of his theology. Accordingly, this great duty of charity to the poor is everywhere practically recognized among the Mohammedans, and, as Irving, in his Life of Mahomet, expresses it, "every Moslem is enjoined, in one way or another, to dispense *a tenth* of his revenue in relief of the indigent and distressed."*

There need be little hesitation in saying that, if it were possible to imbue human society generally with this principle of giving *the tenth of each one's revenue to the poor*, with proper safeguards against *the danger of the charity thus dispensed operating as a premium on idleness*, one of the most extensively beneficial principles towards the general improvement of the social condition of mankind would be thereby introduced. Of all the modes of distributing the aggregate wealth of society, with a view to supplying the wants of those who, from any of those innumerable vicissitudes, incident to human life, to which poverty is referable, stand in need of such assistance, private charity, individual bounty, is, with little doubt, the very best.

* See Owen's New Moral World, part vi., chap. 5, p. 219, of first American edition; also, see same work everywhere, for substantially the same idea.

* See Irving's Life of Mahomet and his Successors, vol. i., appendix, p. 365. Putnam's edition of 1850.

One of the greatest difficulties which the social philosopher has always had to encounter is, *how is it possible to give freely to the poor without thereby offering a bounty on indolence;* or, in a larger sense, *how is it possible to effect a fair distribution of the aggregate wealth of society without thereby tending to diminish its production;* or, in a still larger sense, *how is it possible to increase the aggregate wealth of society without thereby, pari passu, increasing the population?* And it has been a great reproach to Malthus, that, feeling himself unable so grapple with that great difficulty, and overestimating the importance of his controlling idea, as to the tendency of population to outrun subsistence, to which he attributed far too large a proportion of the pauperism of human society, he cast serious doubts upon the propriety of any efforts whatever, either by private or public charity, to relieve the sufferings of the poor. This was a lamentable error of Malthus, valuable as have been his contributions to the true philosophy of society. While it is true that all charity which operates as a bounty on indolence, or tends unduly to increase population, is generally to be deprecated, there is a vast deal of charity that may be safely dispensed without any such injurious result. The great practical question, then, is, how is the discrimination to be made between that poverty which should be relieved by charity and that which should not? It may be very safely asserted that public or State authority is very little qualified to make the discrimination, and that all public provision for the poor must operate in one or other of these two injurious modes; it must either, by its *liberality*, operate as a premium on indolence, and a quickener of population, or it must, by its *stringency and repulsiveness*, operate to deter many meritorious sufferers from applying for relief, and constrain them, in some cases, even to choose death by starvation, rather than be subjected to the humiliation of seeking support from the rude and reluctant hand of public charity. It may be as safely asserted, on the other hand, that private charity is decidedly the very best practicable instrumentality for making the requisite discrimination—a charity not impelled or directed by laws of human enactment, but by those great *higher laws*, which operate directly on the human heart, and develop its deep religious inspirations and moral sentiments.

Each individual in every society has a certain circle of acquaintance, in which he is tolerably well informed as to the real condition of the persons comprising it, or may readily become so. Let each one, who is well conditioned in life, make it his business to become acquainted with all the *meritorious poverty* in this circle of his acquaintance, and to the extent of his ability, to the extent of *one-tenth*, or even *one-fifth*, of his *revenue*, according to his means, let him contribute to its relief. Let every human being thus seek to glorify his FATHER who is in heaven, by dispensing good to his BROTHER who is on earth. Let this principle be really and generally acted upon, and what incalculable benefits would it confer on society! Suppose, for example, that in the world's great metropolis, London, with its nearly *three millions* of people, or probably *five hundred thousand* families, of whom, most probably, at least *one-fifth*, or *a hundred thousand*, are, to a greater or less extent, proper subjects for charity, while at least *one-tenth*, or *fifty thousand*, are in affluent circumstances—suppose that these fifty thousand affluent families, or heads of families, should organize themselves, say by parishes and precincts of parishes, into a noble POLICE OF CHARITY, to act as guardians

and protectors of the poor, to ascertain who are really proper subjects of relief, either temporary or permanent, and to partition among themselves the noble privilege of ministering to their wants, so that each affluent family, on the average, should have the happiness of maintaining, either in whole or in part, two destitute families besides itself—then we should witness a practical realization of that charity which breathes indeed in every accent of "the meek and lowly Nazarene," and is openly proclaimed in almost every line of "the great Arabian prophet." But, alas! it is much to be feared that this happy *realization* is never to be *actualized*. In order that it should be, it is necessary that the great majority of mankind should become, in reality, and not in name merely, good and true Christians, or, as some two hundred millions of the human family might prefer to say, good and true Moslems.

There is another principle of no inconsiderable value in social science that is to be gleaned from the Arabians—the principle *that wealth ought to be distributed according to the* WANTS *of individuals, rather than according to their supposed* MERITS OR RIGHTS. This valuable principle, so difficult to reduce to general practice, the Caliph Omar, the second of the Caliphs, or "Successors" of the Prophet, appears to have clearly recognized and forcibly set forth in his public administration. On this point, the words of Irving, in his "Life of Mahomet and his Successors," may be advantageously quoted. He says, in speaking of Omar, "Some of his ordinances do credit to his heart as well as his head. He forbade that any female captive who had borne a child should be sold as a slave. In the weekly distributions of the surplus money of his treasury, he proportioned them to the wants, not to the merits, of the applicants. 'God,' said he, 'has bestowed the good things of this world to relieve our necessities, not to reward our virtues. Those will be rewarded in another world.'"*

There does not, however, appear to be any practicable mode of introducing this principle generally into human society, except, as with many other principles, by gradually infusing it into the minds of men, and incorporating it into their general habits. As for the *force-pump* operation, by which "Fourierites," "Owenites," and the like, would vainly essay to infuse this principle, like other excellent ones, all at once, and upon a grand scale, into all the ramifications of society, it should be superfluous to remark, that, like most of their projects, it is utterly chimerical.

Perhaps the most feasible point for obtaining entrance for this principle into the general operations of society, is *the voluntary distribution of estates*, either by gift or devise, for in respect to *the legal distribution of them*, it is utterly impracticable to introduce them with any degree of success. In England, it has been the custom of parents in devising their estates, or otherwise distributing them among their children, to follow the established law of descents in the country, by giving much the largest bulk of the property to the eldest son. In America, on the contrary, as in France since the revolution, the custom has almost universally prevailed of dividing it equally among all the children, male and female. But neither of these principles is altogether the most commendable or

* See Irving's Life of Mahomet and his Successors, vol. ii., chap. 35, p. 282, of Putnam's Edition of 1850.

proper. It would be far better, both in respect to what is intrinsically most just, and to what is most conducive to the best condition of society, to adopt the principle laid down by the Caliph Omar, and to partition the property of families among the different members according to *their respective wants*—giving a larger share to the females than to the males, and, as among the males, the largest share to those who are least fitted for business, or taking care of themselves without the advantages of fortune.* How different, in this respect, are the ideas which generally prevail, even in the most enlightened communities!

While considering the ideas embodied in the Arabian or Mohammedan religion, which may be regarded as valuable principles in social science, we should not omit notice of one, which, though more strictly and peculiarly *religious* than those which we have already remarked upon, is of such extensively important bearings upon all the transactions of men, whether public or private, social or individual, that it is deserving of consideration here and admiration everywhere. It may be regarded as one of the noblest expressions, anywhere to be found in the compass of human language, of the *religious principle*, in its application to the *actions* of men, which, as we have already had occasion more than once to remark, is a highly important *force* in the organism of every human society.

A consultation being held, by the Caliph Omar, over the royal carpet, taken in Madyn, the Persian capital, whether it should be stored away in the public treasury, to be used by the Caliph on state occasions, or be included in the booty to be shared, and Omar hesitating how to decide, referred the matter to Ali, who is reported to have made this noble reply:—"Oh, prince of true believers, how can one of thy clear perception doubt in this matter? In this world nothing is thine own, but what thou expendest in well doing. What thou eatest will be consumed; what thou wearest will be worn away; but what thou expendest in well doing is sent before thee to the other world."†

This noble reply of the chivalrous and noble-hearted nephew and son-in-law of the prophet, may perhaps be regarded as a fair sample of the lofty religious enthusiasm which actuated many of the earlier Moslems. And not improbably Ali had obtained the sentiment from his noble and more gifted kinsman, the prophet himself; for we find nearly the same idea, though more sententiously expressed, in the second chapter of the Koran, where the prophet says:—"Be constant in prayer, and give alms; and what good ye have sent before for your souls, ye shall find it with God."‡ Need we wonder that a people inspired by such noble religious sentiments should be distinguished by such generosity and magnanimity as the Arabians and Turks have repeatedly exhibited, or that the rude Christian warriors of Europe, during the protracted wars of the Crusades, should have been, in their then semi-barbarous condition, greatly improved and refined by contact with their Saracen foes?

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* Of course it should be obvious enough, that there may be conditions of society which would render the introduction of this principle highly inexpedient, and a departure from it advisable. As every people are not fitted for the best government, even by the admission of Aristotle, as we have before had occasion to remark, so are every people not fitted to receive those principles which are conducive to the very best or highest state of society. It may be even that England is not yet prepared for an abolition of the primogeniture law—perhaps she never may be.

† See Irving's Life of Mahomet, vol. ii., chap. 28, p. 248. Putnam's Edition of 1850.

‡ See the Koran, as translated by Sale, chap. ii., p. 205, of Philadelphia Edition of 1833.

IV. *The condition of the Arabians, and that of other nations who have adopted their religion, illustrates very clearly, and more so than that of any other nations, the importance of well organized government, and the real nature of the evils of bad government.* That the actual condition of affairs in all the Mohammedan countries of the present day is deplorable, and presents a lamentable contrast with that of most Christian nations, and even with that of the Chinese and Japanese, is a fact too notorious to need any special verification here. The question naturally and forcibly presents itself to our minds, what is the cause, or what are the causes, of this very inferior condition of the Mohammedan nations? Why is it, that, with a religion nearly resembling that of Christianity, and in fact inculcating, even more forcibly than Christianity itself, many of its most beneficent principles of action, these Mohammedan nations are so far behind those of Christendom, and even behind the more advanced of those nations who possess religious systems much inferior to their own—why is it they are so far behind them—in wealth, in industrial resources, and in the general thrift and comfort of the population?

The correct and complete answer to this question, as to all similar ones, is only to be found in a searching analysis of a multitude of causes, immediate, intermediate, and remote. But, speaking in a general and summary way, it may be answered that, while this inferior condition of the Mohammedan nations is attributable partly, and *primarily*, to inferiority of *race*, partly, and *secondarily*, to the pernicious influence of *polygamy*, which, itself the *outgrowth* of the race, as are other national habits and institutions, reacts injuriously on the actual condition of the race, and partly, and also *secondarily*, to the pernicious influence of their *religion*, which inculcates the pernicious doctrine of *absolute predestinarianism*, or blind fatalism; it is *tertiarily*, more immediately, and therefore more prominently, attributable to *a deplorable and wretchedly contrived political system.*

And this brings us to remark that, while political causes, as we have had occasion repeatedly to observe before in the course of this review, are not, by any means, so important in their bearings on the social condition of a people as many have supposed, and as is commonly imagined, they are nevertheless of a highly important character. It would be a very great misapprehension of the scope of the ideas intended to be suggested in this review, and to be more extensively and systematically unfolded in the work to which it is designed as introductory, to suppose that it ignores the influence of political causes, when in fact it only subordinates them to causes more comprehensive and fundamental, and aims to assign to them their true place in the grand hierarchy of causes which regulate the destiny of human society. For while it is very little that the very best organized political government can do for the social condition of a people, let it be distinctly borne in mind that it is very little that can be done without such government. Such a government, though far from being, as many superficialists in Social Philosophy seem to have imagined, *all sufficient*, is nevertheless *indispensably necessary* to the social well being of a people. The political organism of society is to the real life-giving principle of that society, with some qualifications, what the *body* is to the *soul*. For nature nowhere, either in her primary or *secondary* creations, (of which latter human society is one,) develops a principle except through an organism, and that, too, an organism con-

formable to the principle, and adapted to give expression to it. As, therefore, there can be no perfect man without a perfect body for his psychological faculties, or the qualities of his soul, to act through, so there can be no perfect state of human society without a perfect government, nor a very highly improved state of society without a highly improved form of government. Still it is not the *outward form* of a man, the beauty or strength of his person, by which we estimate his worth or real character, but rather his soul. "It is the mind that makes the man," as the old adage justly says, and to a very great extent it determines the shape and configuration of the body. And so it is with the inherent and fundamental character of a people, which not only determines the general character of their conduct and destiny, but also the form of their government. Yet so intimately related are the organism and the organic principle, the body and soul, in both cases, that if, from any cause or combination of causes, the organism or body be defective, it will not only impair the efficacy of the organic principle or soul, but react upon it with deleterious effect Every principle, whether of social or individual life, must have its appropriate organism through which to act. The courage of the lion could never be manifested through the organism of the rabbit. Nay, the brain of a Cæsar, upon the thorax of a mere *gourmand* or sorrowful *hippocondriac*, would be an abortion of nature.

We may find a somewhat striking practical illustration of the truth of these general remarks in the condition of the Mohammedan nations, and especially of the Turks and Persians. For while they derive from their religion, and practically exhibit in many of their dealings, some of the most commendable qualities of Christians, and such as, if generally acted upon and rendered practically operative, would insure them a greatly ameliorated social condition, they in point of fact exhibit a wretched state of society, and one that is, in a most extraordinary degree, subject to injustice and rapacity. Deriving from their religion, in short, many principles of action which should tend to diffuse through their society the amiability of the lamb, the actual character of their society much more resembles the ferocity of the tiger. The true explanation of this state of things is, with little doubt, this, that there is a sad lack of that political organism through which alone such principles as are inculcated by their religion could find their legitimate expression, and, on the contrary, such an organism as essentially tends to stifle all such principles, to develop, in their stead, those of injustice, rapacity, and tyranny, with all the ills which usually follow in their train.

This will undoubtedly strike the discerning social philosopher as the most prominent of the *immediate* causes of the great evils observable in the existing social condition of the Mohammedan nations; or, in other words, as the most prominent of those causes which lie more readily within the reach of remedial appliances. Their governments are of that highly objectionable class called absolute or unlimited monarchies, and much more nearly than any other human governments merit that designation. For in point of fact no human government is an absolute or absolutely unlimited monarchy, and those only are commonly so called which do not legally or avowedly recognize any other original source of authority in the State than the reigning prince, and which do not possess any well defined limitations on his power. But in reality all monarchies,

however absolute, or nearly so, are tempered and limited by some other powers in the State; and according to the extent, the definiteness, and reliability of those limitations upon the theoretically absolute power of the sovereign do such governments approximate that best of all governments, for much the larger part of mankind, the constitutionally limited monarchy, which is so admirably illustrated in the government of Great Britain. In all Mohammedan countries, however, these limitations are exceedingly slight and imperfectly defined.

In the Russian monarchy the authority of the Czar is limited by the numerous and powerful landed aristocracy of the Boyars, by the enlightened public sentiment of Christendom, and, lastly but not leastly, by the admonitions of a highly advanced state of knowledge. In China, the power of the Emperor is limited by a numerous and highly influential board of learned Mandarins, by immemorial customs approved by experience, and the wise and hallowed doctrines of Confucius, against which no one in China, from the Emperor on his throne to the pedagogue in his school-room, dare seriously to offend. In Japan, the regal authority is limited also by a numerous and powerful aristocracy, both of wealth and learning, by long established laws, and by immemorial usages, which so completely bind down and hedge in the "Supreme Mikado" that he is, in point of fact, almost as completely a *mere puppet* as the so called "king of England." But in Turkey, Persia, and Morocco, the most noteworthy Mohammedan nations, (for the Arabians have now generally relapsed into their primitive nomadic state,) the government may be justly styled, as that of Turkey has been by Chataubriand, "an absolute despotism tempered by regicide." It is true that the Koran is in all these countries binding authority both on prince and people; but unfortunately the prince is the supreme interpreter of the Koran, both for himself and people, subject only to the hazard of regicide; and, besides, the Koran is at best but very poor authority for the guidance of a prince in affairs of state. It is true, moreover, that in Turkey there is an *Ulema*, or body comprising the priesthood of the State, and the lawyers, whose office it is to interpret the law, which constitutes a sort of State aristocracy. But this Ulema is an order of privileges or exemptions, rather than of real powers, and constitutes but a feeble *breakwater* against the *great open sea* of monarchical power, and under the shelter of which individual enterprise would vainly seek to find a *haven* of security.

But the most deplorable feature in the political despotism of the Mohammedan countries is their *ignorance*. Knowledge is everywhere an excellent substitute for virtue; for, in the grand economy of the moral universe, it is sublimely written, that MAN'S HIGHEST INTEREST IS HIS DUTY. Hence, all truly wise princes and rulers are just in their dealings, however little they may be inclined so to be, on moral principle—for they know that, in the long run, "honesty is the best policy." Of all the checks and limitations on the power of absolute monarchs, so called, therefore, knowledge, extensive knowledge, true knowledge, is the most important, extensively efficient, and useful. Herein consists one grand advantage that the absolute monarchs of Christendom possess over those of Islam—they have more extensive knowledge—knowledge of the true principles on which governments ought to be administered, of the laws of political economy. They know, or at least are beginning of late to learn, that if they would promote their own interests they must seek to

promote those of their subjects; that if they would fill their own coffers with money, it is not by gouging or swindling their people, nor by arbitrary exactions framed with little regard to the rights or interests of those by whom they are to be paid, but by fair, equitable, and fixed revenue laws, as gently levied as possible upon an universally protected and prosperous national industry.

But the sovereigns of Mohammedan countries are lamentably ignorant, especially in matters of political science, for which, indeed, their whole race seem to possess but little talent. They know little or nothing, indeed, except what is derived, or supposed to be derived, from the Koran —a book vastly inferior to the old Hebrew Bible in the wisdom it embodies, yet a book which they presumptuously regard as a *finality to the human understanding*, both in matters of Church and State. They are profoundly ignorant of Political Economy, are unacquainted with Adam Smith, and would not appreciate or understand him, most probably, even if they were possessed of his immortal work on the "Nature and Causes of the Wealth of Nations." So profoundly ignorant are they, indeed, of the true methods by which the coffers of princes are to be filled, that, instead of aiming at the total abolition of all arbitrary exactions, or attempts to raise public revenue except by fixed and equitable revenue laws, from an universally secured and unfettered industry, they notoriously encourage and inculcate the principle of official rapine and plunder, which tends most effectually to dry up all the sources of revenue, both public and private.

The government in all Mohammedan countries, in fact, instead of being the protector of the people, is a vast and notorious public robber, of whom the public live in constant terror. From the supreme Sultan or Shah down to his most insignificant pacha, the principle extends of squeezing out of their inferiors, not any definite sum or proportion, but *all they can exact*, upon any tolerable pretext. The *pachas*, or governors of provinces, on their return to court, upon the expiration of their offices, are almost invariably called to account under serious charges of maladministration, too just most generally from the sheer necessities of their situation, and are enabled to save their heads only by large bribes to their courtly superiors. With the full knowledge that this is to be their fate, no matter how justly they may discharge their duties, and not knowing how soon it may be their fate, the pachas, on their part, make good their time by robbing and plundering the people of their respective provinces to the utmost extent of their power.*

The consequences of this deplorable spirit of public robbery and official rapine is a general and almost total *paralysis of industry*. No man has any adequate motive, in these Mohammedan countries, for seeking to create wealth, whether in the shape of agricultural or mechanical production, except such wretched pittance as he may hope to conceal from the government robbers. Hence a vast and general *torpor* stretches from

* As a practical illustration of the manner in which the petty despots, in the shape of governors, in Mohammedan countries, play the game of extortion upon the people, it may be mentioned, in reference to Arabia, which is far less under despotic government, or any sort of regular government, than other Mohammedan countries, that when Lord Valentia was at Mocha, not many years ago, the dola, or governor of the town, used to confine the Jews and others known to possess money in a close room, and fumigate them with sulphur until they purchased their release at the price he choose to stipulate. See McCulloch's Geographical Dictionary, title Arabia, caption *Sources of Revenue*, and authorities there cited—Valentia, Niebuhr, and Burkhardt.

the heart to the extremities of every Mohammedan nation of the present day, under the influence of which many of the fairest and most fertile portions of the globe, once the grand centers of wealth and population, now appear as unproductive wastes.

This is the grand evil under which Mohammedan society everywhere groans; and this brings forcibly into view the *real nature* of the evils of bad government, or of those evils at least which exert an *immediate* influence on the social condition, as contradistinguished from those which, by their gradual and permanent effect on the character of a people, exert a more *remote* influence, and may be regarded as *original* rather than *immediate* causes of their social condition.

The real and essential nature of those political evils which exert an *immediate* influence on the social condition, is thus found to be the *uncertainty* which they create—the impression which they beget in the mind of the community, that *no dependence can be placed on the action of the government and the stability of its policy*, the inevitable effect of which is a wide-spread *paralysis of the national industry and enterprise.* We are thus enabled to see that it matters comparatively but little what the policy of a government may be, provided only it be stable, regular, and uniform, and that it is the ever changing policy of the political authority of a State, its uncertain and unreliable action, which it defies all human ingenuity to make any adequate provision against, that is the real bane of the national prosperity, in respect to political misrule—that in short a permanent tax of fifty per cent on the total revenue of the nation, levied annually by the government, is not so injurious as an *uncertain* tax, ranging from only *ten* to *thirty* per cent.

This great truth, that the *essential nature of the* IMMEDIATE *evils of all bad government is* UNCERTAINTY, seems to have been very little considered, if it has not been almost totally unknown by statesmen hitherto. Indeed, the writer of this review has not been able to discover (so far at least as is now remembered) that any statesman or political philosopher, from the time of Solon down to the present day, has distinctly recognized or clearly perceived, even in part, this important truth, except, perhaps, the colossal statesman of America—Daniel Webster; and even he seems to have had only a partial appreciation of it, and of its extensive and important applications*—a fact which will appear the less remarkable, when it is considered that his great intellect, like that of many other illustrious statesmen, in former as well as in later times, was occupied, during his whole life, with the practical details of statesmanship and legal practice, rather than with the fundamental principles of political or social science. But the practical applications of this great truth in political science it is not proposed here to consider. These appertain rather to the *third part* of the main work, to which the present undertaking is a mere introduction, in which "The Influence of Political

* See Webster's speech at Baltimore, delivered at a dinner on the 18th of May, 1848, as reported in Niles' Register for that year, vol lxiv., p 219. In this speech, this profound statesman used these eminently profound and just words, with many more of a similar import:—"Depend upon it, gentlemen, it is change and apprehension of change that unnerves every working man's arm in this section of country. Changes felt and changes feared are the bane of industry and our enterprise." See Niles' Register, vol. lxiv., p. 221. In this speech, Webster clearly enough recognized the vast mischiefs of *uncertainty* as to the policy of the political authority of States. But he does not appear to have carried forward the idea to all of its important applications, nor to have discerned that all, or at least very nearly all, the *immediate* evils of bad government are resolvable into the *uncertainty* which they occasion in the minds of men as to *what action may be expected of the government.*

Causes on the Social Condition, or Man in relation to his Political Institutions," will be particularly considered.

V. *The career of the Arabians illustrates strikingly the great sociological law, that the higher the organism of the society, or body politic, the more liable it is to derangement, disease, and death.* It may well be considered extraordinary that the Arabians should be found to illustrate, with such remarkable distinctness and perspicuity, so many of the most fundamental and important principles of social science. It might really appear as if they had been placed there, on their great grim deserts, for the express purpose, among others, of serving as a sort of *illustrative black board*, (such as are used in the primary schools for the instruction of youth,) on which the social philosopher might, by means of the figures sketched thereupon, by the outlines of their own history, be enabled to trace the demonstration of some of the most important *theorems* in social science.

Not only are the principles which have been already remarked upon, in this part of our review, practically illustrated with greater clearness and force by the history of the Arabians than by that of any other nation, but so also is the one which we now come to notice. If, indeed, the observant social philosopher lacked the reasoning power necessary to deduce the proposition in question, either from *a priori* principles or from the wide-spread analogies of organic nature, he could scarcely fail to discover it, when attentively observing the history of the Arabians, where it is so clearly and prominently revealed as to be almost palpable to the *outward sense.*

In observing the history of the Arabians we see a race of people, numbering some *ten* or *twelve millions*, thinly scattered over a sterile area of *a million* of square miles, subsisting in a state but little elevated above the merely *pastoral* as to their modes of industry, and but little above the merely *patriarchal* as to their forms of government, remaining in this state without any noteworthy mutations of fortune, and without any apparent symptoms of deterioration or decay, for a period of more than *three thousand years*—yet shooting forth a colony of religious propagandists and conquerors, who, in a more fertile region, were quickly developed into a much more highly organized society, abounding in wealth and the arts of civilization, which languished, sickened, and died, in little over *five centuries.* In short, we see a race of people subsisting with little or no change for *three thousand* years in the *rudely organized society* which has prevailed from time immemorial on the sandy wastes of Arabia, who, in the *highly organized social state* which prevailed under the Caliphs of Bagdad, could not maintain their position as a nation over *five hundred.*

The illustration afforded by this contrast between the durations of the two different states of society is all the more pointed and perspicuous because the two societies were composed of the same *race* of people, and were placed under *like local circumstances*, except that one occupied a more fertile region than the other, thus almost totally excluding any other conclusion, than that the difference in duration was attributable to the difference in the *degree of organism.* Had the Bagdad society been composed of a different race of people from the Arabians, or of the same race of people issuing out of a different clime, as the frigid zone or northern portion of the temperate zone, into the torrid plains of central Asia, the illustration would have been far less pointed and unequivocal.

Nor is much importance to be attached to the fact that the Bagdad society was far more exposed to *foreign violence*, by which it was ostensibly overthrown, than that of Arabia, which has ever been indebted for its immunity from invasion to its vast sterility. For, as Hallam has remarked most justly, concerning the ruin of Roman literature and civilization, that we must not ascribe it altogether to the barbarian destroyers of the Empire, but rather to the gradual and apparently irretrievable decay which had long overspread all liberal studies;* so also is it equally true that the real vitality of the Empire of the Caliphs had departed, long before the disastrous morning of the 14th of February, 1258, when Hoolaku, with his barbarous Mongols, entered Bagdad in triumph and devastation.

This great law of social life, thus clearly revealed to us by the history of the Arabians—*the higher the organism of the society or body politic the greater its liability to derangement, disease, and death*—appears to be but one manifestation of the like more general law of all organic life, although, like other laws, it has its qualifications and limitations, which, to superficial observation, might wear the appearance of contradiction. For we find that vegetable life has a tenacity unknown to the animal, and the lower orders of animal life, (or very many of them at least,) a tenacity unknown to the higher—human life, the highest and most refined of all organic life, being liable to a multiplicity of derangements and diseases, from which the lower orders of animals are entirely exempt, and requiring a far greater degree of care and attention to preserve it.

In accordance with this great fundamental law of social life, we may predict for a rude and simple state of society, like that of Arabia, *under given circumstances*, a very protracted, if not indefinite, duration; for a somewhat more advanced and highly organized state, like that of China, a shorter duration; and for a still more highly organized state, like that which prevailed in Greece and Italy in former times, and in Britain and America at the present time, under like circumstances, a still shorter duration.

A yet deeper observation than any of those already made might appear to be suggested by the history of the Arabians. May it not be considered that the great duration of Arabian society, without any apparent symptoms of decay, is a contradiction of the idea, which seems to be established by the irresistible logic of analogy, that *nations, like individuals, must die?* To this question it may be replied, that perhaps the Arabians owe their great duration to the fact that they have not had any *real organization*, as a nation or society. For, in looking at the three grand kingdoms of nature, the *mineral*, *vegetable*, and *animal*, we find that the first, which is *inorganic*, exhibits no symptoms of decay or change; the gases of the atmosphere, and the waters of the ocean, remaining unalterably the same for untold ages. Now, may it not be that mankind, in the rude state in which the Arabians have existed at home, for time immemorial, resemble rather the *inorganic* than the *organic* division of nature—that they belong to the *mineral kingdom*, so to speak, of the social universe—that they constitute merely the *raw material* out of which real social organism is to be created, and consequently have no real social life to lose?

* See Hallam's Middle Ages, chap. ix.

But a deeper observation yet remains to be considered, and intimately related to the one last noticed. Does not the long duration of these Arabians, without any symptoms of decay, completely negative, at least the idea, that the *human race is destined ultimately to* DIE OUT *by the operation of natural causes*, and independently of any influences which may be regarded as *extraneous causes*, such as the too great refrigeration or torrification of the planet, or its collision with another world, or its ignition by the too close contact of its gases with those of a comet? For the logic of analogy does not much more conclusively pronounce the inevitable death by natural decay of every social organism than of the whole human creation—the death of every nation, than the death of the whole human race, and all organic being. From the undoubted fact that every individual must die, by an established law of natural decay, the irresistible logic of analogy seems to lead us to the inevitable conclusion, that not only every particular social organism, but the whole human race, must eventually die, by an established law of natural decay. Nay, may we not still further say that, from the simple fact that the first *germ cell* of organic being was destined to perish, the irresistible logic of universal analogy seems to deduce the inevitable conclusion that the whole organic creation (at least as it now exists) is destined also to perish?—thus verifying the grand postulate of Fourier, that "all things have a beginning, a middle, and an end, in the natural course of their existence—animals, vegetables, minerals, planets, suns, solar systems, universes, biniverses, triverses."

But, it may well be asked, how stands this asseveration of the *irresistible logic of universal analogy*, in view of the stubborn fact glaring on us from the sandy wastes of Arabia, that there have flourished, for upwards of *three thousand years*, without any apparent symptoms of decay, a race of people who, as if to make their case still more remarkable, have intermixed with other races less perhaps than any other people, and who have, to a greater extent perhaps than any other people, *intermarried within too close affinities*, the only *influence* yet revealed by *biological science* which seems to contain the *germ* of the natural extinction of the human race? Perhaps the only reply that can be made to this question is, the one so common with those who encounter facts too tough to be digested by their theory, but who yet have the courage, like true philosophers, to swallow them down, to take in all the facts, however unpalatable—*that the world is as yet too young to furnish a satisfactory answer to the question.*

At all events, a further reply to the question, or attempt at solution of the difficulty, will not be made here.* Nor is it perhaps of any great practical utility to consider it anywhere, since the physician or medical philosopher does not vary his treatment of a patient at all, nor any less zealously strive to preserve his life and health, because he knows that he must eventually die at any rate; nor should the social philosopher, or physician of the body politic, any less earnestly strive to prolong the existence and prosperity of a nation, merely because he has discovered the

* Those who may wish to see a further consideration of this question are respectfully referred to the writer's as yet unpublished work on the Fundamental Principles of Sociology, part sixth, in which the *Original Causes which determine the Social Condition* will be considered, and among them the influence of the national age on the social condition, which will incidentally involve a consideration of the influence of the age of the RACE, or HUMAN GENUS, on the social condition of particular nations.

melancholy fact that it must, some time or other, inevitably die, and the whole human race beside.

What has been said must suffice for the observations to be obtained from a review of the Arabian civilization, which, according to the plan here adopted for regarding the whole course of human development, comprises the Medieval Epoch, or *second day* of human civilization, or, in more popular language still, the Arabian Day.

The day of Arabian civilization was, however, of brief duration, not much exceeding *five centuries*, and it is remarkable that the period of its greatest splendor corresponded with the midnight hour of European barbarism—a fact which would seem to indicate that the intellectual world, like the material, has its *antipodes*, in which day and night respectively alternate—although all the facts of the case do not accord with the supposition, as grounded at least upon the idea that Europe and Arabia are *antipodes*, since we presently find them both involved, for a short period, in a common darkness.

With the fall of Bagdad, by the conquering arms of Hoolaku and his barbarous Mongols, on the 14th of February, A. D., 1258, we may consider the light of Arabian learning as extinguished. That may be regarded as the hour of SUNSET to the SECOND CIVILIZATION, and from that hour, for at least *two-and-a-half centuries*, the anxious observer of human history may search the firmament in vain to find the SUN, although the reddening horizon of Europe clearly indicates from what direction is to be expected the COMING DAY.

Art. II.—VALUATION OF LIFE INSURANCE POLICIES.

NUMBER III.

THE method adopted by the Massachusetts Commissioners to determine the liabilities of life insurance offices, when applied to our American companies, has developed, in every case, a larger or a smaller surplus. In some the excess is considerable; in a few it is so small that any extraordinary losses, or any additional requirements of the commissioners, would have converted their surplus into a deficiency. We have insisted, in the last number of this Magazine, that every cent of profit already earned is exhibited by the Massachusetts calculations, so that if any company cannot stand this test it is already insolvent. We now propose to inquire if this mode of calculation does pot give the earnings too large.

Our companies are mostly mutual, and it is the duty of the directors to distribute exact justice between the present and the future members. What has been really earned belongs to the existing insurers, and ought to be distributed among them without delay. What is not earned belongs to the future members, and no rivalry with other companies, no desire for larger business, no craving for the praise of successful management, should impel larger dividends than have been earned; and, on the other hand, no timid fear of the failure, no unreasonable anticipation of future disasters, should lead to the hoarding up for possible demands what has been really earned already, and what, therefore, belongs to the present

members. None of these feelings, or any other like them, should be permitted to outweigh, on either side, the sentiment of justice.

The whole object of the calculation is to find out what part of the past receipts has been paid for future purposes; the balance on hand is all that can be appropriated for dividends. If the company is mutual this exact balance—no more and no less—should be divided, in scrip, in cash, or in credits, to the present members. If less is paid them, they do not receive their proper share of the profits; if more, the safety of the company is endangered. Should there be any leaning to either side, it will be better to favor the future members than the present, since the ultimate security of the company is more important than a correct adjustment of the dividends. But after the company has been fairly and securely established, exact justice should be rendered to the old and the new members. It is much the same with a stock company as with a mutual. If they anticipate future profits which may or may not be made; if they omit, in their estimate of future hazards, any contingency which was provided for in the original contract, the large dividends or expenses which they may think themselves authorized to make will soon consume their capital and leave them unable to meet their liabilities.

So also in determining the solvency of any company. The funds provided in the original contracts for future hazards or necessities that have not yet occurred must be kept unimpaired. If they are anticipated and wasted the company becomes bankrupt. If the contracts were very favorable; if the premiums agreed upon were higher than was needed to meet all the future hazards, so as to furnish some profit, all the gains from this source as they may come in hand may be divided; but no future expectation of profit should be discounted and appropriated for present dividends. A present or past profit is a reality, but a future one ought not to be anticipated and divided. A private individual does not so estimate his means, nor should an association do it. The future is too uncertain to be made the support of present expenditures. The possibilities of failure in future expectations of profits are so numerous, and the proneness to overestimate them is so great, that it is unwise to count them as already in hand. So great has been the competition in life insurance that they are probably small, and it is so easy to make the grossest mistakes in counting them, that it is best to leave them to the future. From the day that the milk maid anticipated her future brood of chickens, the expectation of future gains has been deemed a subject of ridicule, and the expenditure or use of anticipated profits a subject of censure.

Whatever, therefore, be the object of valuing the life policies—whether it be the distribution of profits in a mutual or in a stock company, or the determination of the solvency of the office—past earnings are all that can be counted for present use, and if more is thus appropriated the safety of the company is at once endangered, and it becomes the State to sound the alarm, that its citizens be not deceived and ruined.

This being laid down as the proper basis of calculation, let us consider the elements of a whole life premium. Part of it is for the risk during the first year, part for the risk during all subsequent years, and part for expenses and contingencies. The last, which constitutes the loading, ranges from thirty to forty per cent of the first two. Now, though the first year's expenses may be, in a well managed company, twelve or fifteen per cent; the subsequent years can seldom be as large as ten, unless the

company is very small. Expenses of every kind can, therefore, seldom or never absorb one-half the loading. Of the contingencies for which the other part is needed, the most important is a fluctuation in the mortality, and the possibility of a general advance in this over the tabular rate that may have been adopted. The Carlisle table, which is used by most of our companies, gives a very small mortality, and the probability of an advance on this in every company's experience is very great. But, even if the table that has been selected should represent perfectly that class of which the insurers are composed, considerable fluctuations in this may be expected among the small numbers of which any company is made up. The deaths among them may average ten, fifteen, or twenty per cent above the tabular predictions. This excess may continue for many years, and without the loading it might ruin the company. Seven is the average number that may be expected to be thrown by a pair of dice after many throws; but if two throws are made there is more chance of counting ten per cent over fourteen than there is of having thirteen, fourteen, or fifteen. With three, or with several throws, a considerable variation from the average will be highly probable. And if this be true of dice, much more will it be true of human life, where epidemics and unknown but active diseases may increase the mortality of the few members insured to a large percentage above the average. This liability to excessive mortality and to fluctuations above the average, as well as other future contingencies, explain why so large a loading as thirty or forty per cent is added to the net premium, and as twelve, or fifteen, or twenty is abundant for expenses, the balance is for a risk not yet fully incurred at the end of the first year of insurance, and a portion of it belongs to the reserve.

When four or five years have elapsed after the issue of a policy, the future risk is provided for from two sources: the one, the future premiums, and the other, a part of the past premiums. The loading on the future premiums will pay for their part of the future expenses and contingencies, and the other share must be supplied by the loading on the previous payments. A part, therefore, of the loading on the past premiums is yet unearned.

Now, the net premium mode of calculation merely appropriates for the future that portion of the past payments which suffices to meet the future average risk, counting nothing for excessive mortality and other contingencies. The whole of the loading in past payments, after meeting past expenses, is counted as profits, whereas only a part was charged for expenses, the other part being for the chance of an excessive mortality and other contingencies in the years that have elapsed and in the years that are yet to come. A part of the hazard for which the loading is provided being yet future, it is necessary to reserve more than is provided for in the net premium mode of calculation.

A reference to the premiums usually charged for one year, and for whole life policies, will show this more plainly. At the age of thirty the average charge for a one-year policy by the New York Life, the Mutual of New York, and the New England Mutual, is $120 43 for an insurance of $10,000. For the whole life, it is $231 40. Now, the average expenses of these companies, counting all of it on premiums alone, is about thirteen per cent, and their interest six. These two premiums, therefore, net them at the end of the year $112 and $215 20. Now, what-

ever be the object of the increased charge on the whole life policy—whether it be for the future mortality alone, or for this and other future contingencies, or for future profits, or for all of these—it is evident that the difference—$103 20—is for the future. The excess in the second charge is the measure of what is paid by the second insurer for the risk not incurred by the first, and is, therefore, a payment made for a hazard after the expiration of the first year. Now, the net premium mode of calculation only gives $83 21 as the portion on hand at the end of the first year belonging to the future risk. The average charges of these companies show that about $103 20 is the proper allowance. If the premiums for a seven years' policy were treated in the same manner the excess would be fully as large a percentage over the method of net premiums. If the rate of expenses were taken as high as twenty per cent, and the interest as low as four, the excess would be $97 65, which is still eighteen per cent above the $83 21.

But, if any actuary should hesitate about the general appropriateness of an addition to the reinsurance fund beyond the net cost of the future risk, he should not hesitate a moment for any American company. The deaths among our insured will be sure to exceed those of the English life offices. Our climate is so variable, our seasons so liable to sudden changes, the extremes of heat and cold and dryness and moisture are so excessive, our cities pay so little attention to sanitary laws, our police regulations are so neglectful of those salutary restraints that have been adopted in older countries, our people are so prone to remove to places where they are not habituated to the climate—where they are ignorant of its peculiarities, or, if informed, very ready to neglect them—our devotion to business is so steady and laborious, our love of gain so untiring and harrassing, our indifference to comfort and health so marked and universal, and our recklessness of human life so general in every part of the country, that the mortality of assured lives here will probably be greater than the experience of the English life offices. Already the published experience of the Mutual Life of New York, and the Mutual Benefit of New Jersey, gives a mortality for the earlier ages above the Carlisle or the actuaries' tables, and although the general result at all ages is below these tables, there is nothing to render it probable that this will continue, if we remember that these insured persons have only lived, on an average, four or five years since they were first admitted into the company and pronounced to be in perfect health.

It is difficult to say how much of the loading ought to be counted as a payment for future contingencies: one-third or one-half of it, that is, ten or fifteen per cent of the net premiums is not too much. And ten ought surely to be the minimum.

A mathematical formula, expressing this mode of calculation, is—

$$\left(1 + a_{m+x}\right)\left(p_{m+x} - p_m\right)$$

where a is the value of an annuity, m the age of insurance, x the age of the policy, and p the net premiums, increased by ten per cent. The formula is precisely the same for the net premium method, except that p is here ten per cent greater.

This method is used by some of our American companies, but fifteen

per cent, and even more, is sometimes used instead of ten. This correction is not, however, the only one needed. And for our recent American companies, and for all who are receiving a large number of new members, there is another of the highest importance.

It is well known, by the universal experience of life companies, that the mortality in the early years of insurance is much less than afterwards. This is especially observed in the first year, when the insured have just been examined by the company's physician and pronounced perfectly sound. The influence of selection extends for several years after the first. At the later years the mortality is higher than the average. The abandonment of their policies by the strong and the hearty, and the purchase of such by the company, makes the mortality among the older members much above the average. These two influences are of great importance. They indicate most clearly that it is wrong to count as earnings all the gains that appear to be made in the earlier years of insurance. The mortality will be below the average at first, and the gains from this source must be husbanded to meet the future losses when the mortality will be above the average. That time will be sure to arrive, sooner or later, and even if it should never come, the large profits of the first years being expected when the contract was made and the premium fixed, belong to the whole contract, and should be distributed over the whole time.

If a fire insurance were taken in May for twelve months, as the risk is less for the summer than the winter, half the premium is not earned in six months. In a marine risk, if the vessel has been spoken near the distant port whither she is bound, the underwriter should not regard the premium as nearly earned, for the most hazardous part of the risk is yet to be incurred. So a life insurance company, knowing that its losses in the first year will be small, ought not to count all the apparent gains, from a mortality below the average, as real earnings, but should reserve a part of them to meet future excesses above the average. Even if those excesses shall never arrive, the first year's apparent gains do not belong to that year, but should be distributed among all the years.

It is no answer to this to say, that the reserve is sufficient to meet the future mortality according to the tables; because, on account of forfeiture by the best lives, the future losses will probably exceed the average; and because the mortality, as made up in the actuaries' table, is an average of the first and all subsequent years; and because, in making the contract, a small mortality was expected the first year, and the premium being the same for the whole life, is made to represent an average for the whole time.

This point being very important, we will illustrate it still farther. Suppose a company to insure a man at thirty, for a single premium, after a careful and satisfactory examination of his constitution, health, and habits. They would earn a certain portion of the money received if the insured should live till he was thirty-one; if he should survive another year the portion earned would be still larger; if he should be alive at the end of ten years the gains would increase every year. He may now be helpless, his constitution gone, his habits ruinous; or his health may be as good as when he first took out his policy. But this uncertainty makes the risk at forty greater than it was at thirty, and if he survives till he is forty-one the earnings will be greater than in the first year after

insurance, not only because he is older, but also because of the uncertainty as to his general health and habits.

Some of our companies make an allowance for this, under the name of a deterioration of life, and this phrase expresses not only the object but the appropriateness of this allowance.

The statistics furnished by the London offices, from which the actuaries' table was constructed, give us the means of judging of the extent of this diminution of mortality during the earlier years of insurance. The following table is deduced from Mr. Higham's discussion of these statistics, in Vol. I. of the *Assurance Magazine*. The first column contains the chance of dying in one year, according to the actuaries' table; the second, the same chance deduced from the deaths during the first year of assurance; the third, from the deaths during the second year of assurance; and the fourth, from those lives in which the influence of selection was exhausted:—

CHANCES OF DYING IN ONE YEAR.

Age.	By the actuaries' table.	During the first year of assurance.	During the second year of assurance.	Several years after assurance.
25	.00778	.00414	.00769	.00815
30	.00842	.00482	.00857	.00941
35	.00929	.00574	.00967	.01299
40	.01036	.00620	.01023	.01672
45	.01221	.00848	.01242	.01921
50	.01595	.01122	.01526	.02483
Average	.01066	.00677	.01064	.01522

In the actuary's report of the Mutual Life of New York, this experience is presented in a different form:—

Age.	25–35.	35–45.	45–55.	Average.
First year of assurance	.5844	.8872	1.3181	.9299
Total experience to 1838	.7910	1.1002	1.6140	1.1684

The regularity of these differences, the large numbers from which they are derived, the fact that most of them were obtained from the Equitable society—where lives, not policies, were considered—make the results worthy of much confidence. They show most conclusively that the mortality during the first year of insurance is a third or a fourth less than the average, and that in the latter years, after selection no longer betters the probabilities of living, the chance of dying is nearly one-half greater than the average.

The following has been furnished us by one of our American offices:—

Mortality in the first year of insurance	.00426
Expected by the Carlisle table	.01150
Mortality after the first year	.01277
Expected by the Carlisle table	.01361

This, and other experience of our American companies, confirms the results of the English life offices.

After the first year the effect of selection, though sensible, is not of much importance. For ten or twelve years it exerts a favorable influence, and after that the mortality is regular and far above the average. From this, it follows that the apparent gain in the first year should be dis-

tributed mainly among the last years of insurance. As the reserve for the first year is nearly equal to the risk for that year, being nearly half the net premium, it is evident that an increase of one-fourth of the first year's reserve will represent very nearly the saving from the diminished mortality of the first year. The following formula, for calculating the reserve or reinsurance fund, modifies, therefore, the one before given so as to introduce this correction for the first year's diminished mortality; and as the multiplies, $1 + a$ decreases slowly at first and rapidly afterwards it distributes the saving among all the subsequent years, reserving most of it for the latter years of life, which is exactly what is required by the experience of the English life offices. The formula is—

$$\left({}^{1+a}_{\quad m+x}\right)\left({}^{p}_{m+x}{}^{-p}_{\quad m-\frac{1}{4}}\right)$$

To give an example of this mode of calculation we will use the same age and table as before. The net premiums at twenty-nine, thirty, and thirty-seven are $171, $175 50, and $215 40. If the policy issued at the age of thirty had been running seven years, p for m, increased by ten per cent, would be $193 05; p for $m + x$ would be $236 94, and p for $m - 1 =$ $188 10, and p for $m - \frac{1}{4} =$ $191 81. The difference of $191 81 and $236 94, or $45 13 being multiplied by 16,666, which is $1 + a$ for 37, gives $752 14 as the correct amount needed for reinsurance. The method of net premiums gives only $664 97. The percentage of difference would be larger for two or three years, and less for more than seven.

We have not hitherto made any reference to the defective premiums charged by some companies, and we would now remark that, unless the rates are thirty per cent higher than the Carlisle or the actuaries' four per cent tables, the methods above explained will not give satisfactory and reliable results. The object of the formula is only to determine what portion of the past payments appropriately belong to future risks and contingencies; but if the future payments are not sufficient to meet the hazards for which they are devoted, the company's safety will be endangered from this source, as well as from the other. Nor does this difficulty exist only when the whole table of rates for every age is insufficient, but also when the premiums for particular ages are too low. In the rates of the "International," for example, the loading ranges from 9 to 62 per cent. For those ages when the additions are too small to meet expenses and contingencies, something must be reserved out of capital or former accumulations to meet the deficiency.

The true table of mortality, or the closest approximation to it we can have, should also be made the basis of the calculations.

The formula we have given above is not, therefore, proposed as complete, since the proper mode of calculation must have reference to the real premium charged, and to the approximate mortality of the assured. The consideration of these we will postpone for a subsequent article.

Art. III.—BRAZIL: ITS TRADE AND FINANCES.

The course of events is rapidly bringing the countries of the American continents into closer connection, and the vast empire of Brazil, with its great resources, is, at no distant day, to contribute a large portion of our commerce. All that throws light upon the actual position of that interesting country, becomes, therefore, important to the commercial public. We therefore lay before our readers the accompanying translation of a letter which was addressed to the Brazilian Minister of Finance, in reply, partly, to questions (which are given) addressed to the eminent firm of Maxwell Wright & Co. by the Minister, and partly to separate questions, which do not appear, addressed to Robert Clinton Wright, Esq., by the principal law officer of the Treasury Department.

The American reader must bear in mind that in Brazil the quotations of exchange are the reverse of those in New York, and that exchange is said to be rising there when in the United States it would be said to be declining. And he must not, therefore, be startled to find arguments based upon a declining exchange which he has always been accustomed to refer to an advancing exchange. And if he shall find any expressions in reference to crisis which may seem to him paradoxical—as, for instance, "a crisis arising from the legitimate movement of the foreign trade"—he will remember that, in the view of the writer, the crisis of 1857, which shook the world, was brought about by a half-dozen stock gamblers in New York; that it came like a clap of thunder from a clear sky, and was no less a phenomenon than this—that it was the result of senseless panic, and that so long as credit shall constitute an element of trade, it must own panic as its twin sister; that panic, owing no allegiance to reason, may arise with or without a cause, and therefore that it is not paradoxical to say that "crises may arise in the course of the legitimate movement of trade," involving alike the prudent and the imprudent, those who trust to instinct and those who build on reason, in one common ruin. It must never be forgotten that all of credit that enters into price is the *subject of collapse—the food of panic—the only source of crises:*—

Question 1. How are exchange operations made in the market of Rio de Janeiro?

Answer. As regards foreign exchange, operations are made by the offer and purchase of bills of exchange, at a conventional usance, but for the most part at 90 days' sight upon various foreign markets. The business is generally done through the agency of brokers. It may be observed that the quotation of exchange in the Rio market is always based upon the value of the money of the country. It is the money of the country that is quoted, which is not the case in some other markets. For instance, in the markets of the United States the foreign money—the money in which the bill is drawn—is quoted, and not the money of the country. As a consequence, a rise or fall of exchange in Brazil and in the United States convey diametrically opposite ideas. A rise of the exchange in Brazil is considered favorable to the country; a rise of the exchange in the United States, on the contrary, is considered unfavorable to the country.

Question 2. What determines amongst us, as a general rule, the course of Exchange?

Answer. The *daily* exchange with foreign countries amongst us, as well as in all countries, is determined by what Raguet terms the "balance of payments"—an expression used by him in contradistinction from the more comprehensive term "balance of trade." By the "balance of payments" is understood that sum which a city or a nation may be bound to pay at a given time; and the *daily* course of the foreign exchange, that is, the daily fluctuations which are observable, is determined by the relation existing between the sum of obligatory payments and the sum of exchange offering in the market upon foreign countries—this last sum representing, as a general thing, the operations then effected in the products of the country. What we have stated is the *legitimate* basis of the daily course of exchange, of its daily fluctuations everywhere. Nevertheless, it cannot be affirmed that this is absolutely the only element of the daily course of exchange. There enter into it, also, various moral and speculative influences which defy any mathematical conclusion. Drawers, as well as takers, of exchange speculate upon the future. It is difficult, nay impossible, to form any positive judgment upon the commercial condition of a country from the daily quotation of exchange, because it is not given to any human intelligence to embrace and estimate all the elements—positive, moral, and speculative—by which this is determined. But, notwithstanding this great unreliability of the daily course of exchange, all economists agree in the opinion that the exchange —that is, its general tendency—should serve as a barometer to the intelligent merchant; that it should, on this account, be left as free as the ebb and flow of the tide, and in no manner subjected to disturbance by governmental interference.

Thus far we have been dealing with the daily course of exchange upon the hypothesis of a sound circulating medium, one either of metal or which maintained a par with metal. What we have said is referable to the general intelligence as to the causes which determine the course of exchange, and it must be borne in mind that, in this case—that is, upon the hypothesis of a sound circulating medium—be the daily fluctuations what they may, the exchange cannot, for any great length of time, rule at a point above or below par, exceeding the cost of transporting the precious metals.

We shall now take a somewhat broader view of the subject.

For the most part, merchants, contenting themselves with a knowledge of the simple practice of their profession, give themselves little trouble to fathom the science of money, so intimately linked with that profession, and upon which depend their fortunes—the favorable or unfavorable result of their enterprises. The simple practical merchant is not, therefore, the safest counselor in matters of monetary science. As a general rule, the course of exchange is considered amongst merchants to be a simple question, as depending absolutely and solely upon the relation existing between the imports and exports. There could not be a more erroneous opinion.

This opinion is not positively correct even when referable to a sound circulating medium, for it is well known that, even upon that hypothesis, money is more or less abundant according to the greater or less activity of credit trade, and that this element of the greater or less abundance of the circulating medium, although sound in itself, and although this greater or less abundance may be purely relative, exercises a very mani-

fest influence upon the question of exchange. There is, however, a consideration of yet greater importance which is generally lost sight of. We refer to the fact that all currencies, whatever may be their nature, whether exclusively metallic or mixed—composed partly of metal and partly of paper convertible into metal—or exclusively of paper, have two well defined values: one, which may be termed *commercial;* the other, which we shall take the liberty to style *intrinsic;* and this latter denomination, in so far as it refers to paper, being somewhat forced, a little farther on we shall explain the sense in which we have employed the word.

The *commercial* value of a currency is predicated upon the daily course or the daily fluctuations of the exchange, and is that value which does not admit of any disturbance by governmental interference. It is in respect to this value of a currency that all economists are agreed that it should be as free and unembarrassed as the ebb and flow of the tide, that it should serve as a barometer to the intelligent merchant. It is of this value that we have been treating in the remarks we have thus far made in answer to the second question. It now becomes necessary, however, that we should say something in reference to the *intrinsic* value of a currency.

The *intrinsic* value of a currency, if of metal, is determined by its fineness; and, if of paper, in a forced sense, it depends upon its sum in relation to the legitimate wants of a country for a medium of exchange, or upon the relation which its sum bears to the amount of metal which would circulate in the absence of the paper.

The right to coin money is admitted in all civilized countries, whatever their form of government, to be a high prerogative of national sovereignty. In the United States—a confederation of sovereign States—it may be supposed that, jealous as they were of their sovereignty, at the adoption of the Federal Constitution, they were not moved by light considerations to invest the Federal Government with the exclusive prerogative of coining the metallic money of the country. It is therefore surprising the facility with which the several States, by means of charters granted to banks of issue, have, in effect, neutralized the high prerogative of coinage, with which they had so solemnly invested the Federal Government. By the Constitution of the United States no money is a legal tender but the coins issued by the Federal Government. Nevertheless, for many years after the adoption of the Federal Constitution the notes of the various banks established under charters from the several State governments were received in payment of public dues by the Federal Government; and the Federal Government was itself so far forgetful of its own dignity as even to condescend upon two occasions to become a stockholder in banks of issue, chartered by the Federal Congress, and known as National Banks, of which the notes were everywhere received in payment of the public dues.

More recently, however, at the cost of a very bitter experience, arising from the great abuse of the faculty of issue, wiser views have prevailed; a renewal of its charter was refused to the National Bank; and yet more recently it was ordered by the Federal Congress that all public dues should be paid exclusively in specie, thus vindicating the dignity of the government and the integrity of the National Constitution. We ask

pardon for this digression, and found our request upon the importance of showing that in the United States, the country of all others in which the greatest expansion has been given to the system of banks of issue, although the Federal Government lost sight for a time of the wise provisions of the Constitution in reference to the religious preservation of the standard of value, it found itself ultimately constrained to recognize the necessity of fulfilling its obligations. It would not be possible, at least our pen does not claim the power to paint, even feebly, the afflictions, the horrors, the terrible evils which, during the last seventy years, have emanated, in that flourishing and giant country, from the detestable system of banks of issue—in that country, giant and flourishing by virtue of its great natural advantages, in virtue of the active and enterprising genius of its people, by the mercy of God, and in despite of banks of issue.

Great Britain has passed through an experience, in her monetary essays, none less bitter than that of the United States; and also found herself under the necessity of restricting the issue power. It was her good fortune that her constitution enabled her great statesman, Peel, upon an opportune occasion, to make a radical reform—a reform that should guaranty to her as far as possible, so long as issues were permitted to banks at all, the preservation of her standard of value. And it may be asserted, without fear of contestation, that Sir Robert Peel, by the reform of 1844 in the charter of the Bank of England, established the best system of *mixed currency* which, up to that time, had ever been known, and which, so far as regards the *mixed system*, does not really appear to be susceptible of any improvement.

The system of Peel was, without doubt, considered by economists as the *ne plus ultra* of monetary systems up to the crisis of 1857. That crisis, however, demonstrated that neither the *mixed system* of Peel—perfect although it might be—nor the *purely metallic* system of Hamburg—this latter the realization of the dreams of the ultra-conservative economists—offered any guaranty against panic; and in some general observations, which we shall have the honor to present, after having disposed categorically of the questions which have been addressed to us, we shall set forth humbly, and with all due deference, our views upon what seems to us a possible improvement upon the systems of Peel and of Hamburg. In the meanwhile, however, we maintain, as of the most rigorous duty of all governments, as of the utmost necessity, of the highest social and economic interest, the religious and most scrupulous preservation of the standard of value. *Fiat justitia, ruat cœlum.* What judgment would be formed of the statesman who should propose seriously to frank to each shop-keeper the making of his measure of the *vara* and *covado* of such length as his good pleasure might indicate; to the grocer the determining of how many ounces his pound weight should be? Certainly every one would say that such a statesman was not in his right mind, and would consign him to a mad-house. This privilege to the shop-keeper and to the grocer, although it involves so much injustice that no honest man could hesitate, for one moment even, to stamp it as monstrous, be it noted, affects only a comparatively limited class of daily transactions. How, then, should we qualify the franking to banks of issue of the faculty of depreciating or appreciating, at their good pleasure, the standard of value of a country, the basis, as this is, of all the

transactions amongst men? Nevertheless, this is done, and with a readiness and inconsistency altogether inconceivable to a reflecting man.

Having, by a sufficiently wide digression, sought to inspire all the importance, with which it presents itself to us, of the scrupulous preservation of the standard of value, we will now pass on to the application of what we have said to the question of exchange. We have stated that it is the general opinion that the course of exchange is a simple question, depending entirely upon the relation between the imports and exports, and that there could be no more erroneous opinion. We now give it as our opinion, that the course of the exchange is quite a complex question, and not a simple one, and that, besides the various moral or speculative influences hereinbefore referred to, there enter into this question two positive and legitimate elements:—One, "the balance of payments" equivalent to the external or foreign obligatory commercial debt at a given time. The other, the *intrinsic* value of the currency. And from the operation of this latter element, it may be predicated, that a long duration of a rate of exchange below par demonstrates incontestably redundancy, and consequent depreciation of the currency. For, as the tendency of the exchange, when redundancy does not exist, is always towards the equilibrium or par, the absence of this tendency, for a long time, being observable, leads necessarily to the conclusion that the currency is redundant. And, as our foreign exchange has now for more than two years continued to rule below par, there should be no doubt that this arises from the redundancy of the currency, and consequent depreciation of the standard of value.

Various phenomena are presented in connection with the course of exchange. It was remarked some time since, that at a time anterior to the crisis of 1857, the Bank of Brazil maintained a circulation much in excess of that which has been attained by all the banks together since the date of the crisis,and that at the same time the foreign exchange ruled above par. That such was the fact, there is no doubt, but it was a phenomenon, and a phenomenon due to a senseless competition for the products of the country, which resulted in the ruin of many houses engaged in the foreign commerce of the country. And the decline which subsequently occurred was *precipitated* only, and not caused by the crisis of 1857—it was caused by the excessive issues of the Bank of Brazil, and must have occurred, sooner or later, although there had not been any American crisis. We repeat, the decline of the exchange at the close of the year 1857 was *precipitated* only, and not caused by the crisis, and would have manifested itself in time, irrespectively of that crisis.

Question 3. What was the cause of the decline of the exchange amongst us at the period in which this event has occurred, and especially in the years 1857 and 1858?

Answer. We understand this question to refer to important variations in the exchange, and to its continuance for a long time below par, and not to the mere daily fluctuations. Thus understood, we give it as our opinion, that upon every occasion when an important decline of the exchange has occurred amongst us, the exchange continuing for more than a year below par, it was due principally, if not altogether, to a redundancy and consequent depreciation of the currency. And, at the period more especially referred to, it arose from the great expansion in the issues of the Bank of Brazil, and other banking institutions of the country exercis-

ing the issue power. In our opinion this excess or redundancy continues, and we see as its inseparable, infallible concomitant depreciation. It is thus, and thus only, that the continuance of an exchange below par can be explained. Let this excess of the currency be removed, and there is nothing more certain than that the exchange will immediately rise to par.

But whilst we maintain it to be the imperative obligation of all governments, never to permit any disturbance of the standard of value; once that this shall have occurred, once that the standard of value shall have been depreciated, be the origin of the evil what it may, let it arise from excessive issues by the government itself, or by banks of issue, we could, by no means, counsel violent measures for bringing the currency back again within its normal limits. Whatever measures may be employed for this purpose should be mild, but once adopted, they should be enforced with the most religious exactitude. There is nothing more prejudicial to all interests, than any uncertainty in reference to the future of the monetary system of a country.

Question 4. At this latter period did there occur in our market any shock or panic, in consequence of the commercial crisis in the United States, and which spread to Europe? What was the effects of that shock or panic, the number of failures which it produced, and the amount of the losses which result therefrom, the number and amount of the failures which have occurred from that time to the present?

Answer. There certainly did occur a great shock to our market as a consequence of the crisis of 1857. The great decline in the prices of our products in foreign markets, caused the ruin of many houses engaged in the foreign trade of the country, and some of these houses carried along with them others connected with them, but which were not directly interested in the foreign trade. So great was the collapse of credit, that many houses which were doing business on credit, although not only solvent, but possessed of large capitals, not being able to command these at the moment of necessity, found themselves in a great strait. We estimate at about thirty millions of milreis the total amount of all the failures which occurred at Rio de Janerio, in consequence of the crisis of 1857; and of this sum, perhaps not more than fifty per cent, at the outside, will be collected; there thus resulting a loss of not less than fifteen millions of milreis to the creditors. Nor let it be supposed that the losses of Rio de Janerio stopped here. Rare, indeed, was the house, whether employed in the foreign or domestic commerce of the country, which did not suffer loss, and, in our opinion, the amount of the losses, made known to the public through failures, should be considered insignificant in comparison with that larger one of which little or nothing is known.

Question 5. Is the course of the exchange always determined by the inequality between the imports and exports?

Answer. Certainly not. If the integer of the currency be at its *norma*, there existing no circumstances to invite the interposition of moral or speculative elements, then it may be said that the course of the exchange is determined by the inequality between the imports and exports. It cannot be doubted however that, notwithstanding the interposition of moral or speculative elements, the average rate of exchange for a period of ten years, would be determined by the relation between the imports and exports, it being, however, always understood that the value of the currency should meanwhile suffer no variation through badly advised diminution or increase of its volume.

Question 6. Do bill drawers always limit their exchange operations by the cost of the merchandise which they export, or do they make legitimate operations on credit drawing in advance of their shipments, or upon letters of credit for their correspondents?

Answer. Bill drawers do not always confine themselves in their exchange operations to the true or positive basis of their shipments. They make legitimate operations on credit, speculating, now upon the future course of the exchange itself, now upon a probable fluctuation in the export market. In the same manner bill takers speculate upon the course of the exchange, now remitting in advance of their collections, now in advance even of their sales; and upon other occasions, remitting large sums at a high exchange, that the proceeds may be returned to them in metal, or when this may not be, that they may serve as a basis for their own drafts should such a fluctuation occur as to favor this operation.

Question 7. Has there existed any combination amongst bill drawers to bring about a rise or a fall of the exchange?

Answer. We are not aware of any such combination. It would be impossible that any such combination could, of itself, for any length of time, maintain an exchange above or below the par. It could not impede or obstruct the free course of exchange, in opposition to the law of supply and demand.

Question 8. Can the decline of the exchange which has occurred from 1857 up to the present date, be attributed to the excessive issues of the banks? If yea, did it occur immediately and without the concurrence of other causes?

Answer. It is our opinion, that the decline of the exchange at the close of the year 1857, should be attributed *primarily* to the excessive issues of the Bank of Brazil, its branches, and other banking institutions exercising the issue power. That the decline which then occurred, was precipitated by the great crisis of that period, we do not deny, nor do we deny that the decline was much aggravated by the great shock or panic which then occurred in the market of Rio de Janerio, and which, whilst it diminished the resources of country, through the great depreciation of its products, increased at the same time the necessities of those who had obligations to meet in foreign countries, upon which the effects of the crisis were also weighing, inducing every effort to hasten as much as possible their remittances.

Already, in answer to the second question, we have referred to a phenomenon which occurred in the year 1857, at a period antecedent to the manifestation of the crisis. At that period the Bank of Brazil maintained a circulation larger in amount than has been reached at any subsequent period, and the exchange, nevertheless, was sustained at a point above par. The explanation of this phenomenon is to be found in the abnormal condition of trade at that time. By force of the redundancy of the currency, to which was superadded an inordinate and gambling competition, exorbitant prices for the products of the country were maintained—prices which were not justified by those prevailing in any consuming market. And as the external or foreign commercial debt of the country is not estimated in foreign money, but in the money of the country, so long as it was possible to obtain for the products of the country an amount sufficient to meet the cost of what was bought from the foreigner, this cost being estimated in the money of the country, the depre-

ciation of the currency, although in fact existing, did not necessarily manifest itself; at least up to the period of the crisis the progress which had been made in the depreciation of our currency, so far as described from the quotation of exchange, was unknown. The discovery was, however, none the less certain because deferred. It was a question of time simply, and had the American crisis never occurred, we should, infallibly, have had, and that within a very short time, a Brazilian crisis. For, it was impossible that the export of the products of the country could have continued, always with loss, and the senseless career of those engaged in this branch of trade once arrested, the same effect would have been manifested as that which was produced by the American crisis, to wit: a suspension of exports, an accumulation of the products of the country, for which there would have been maintained, by force of the redundancy of the currency, prices, which, estimated in foreign money, at the par of exchange, would not admit of their being exported, and, as an infallible consequence, to promote their exportation, it would have become necessary to recognize the depreciation of the currency, and there would then have been established a rate of exchange, below the par, corresponding with such depreciation.

Question 9. Did the bills of the extinct banks, Commercial and Brazil, established on the 10th December, 1838, and 12th October, 1808, and those of the provincial banks, as well as those of their respective branches, circulate as promissory notes before and after maturity? Did this occur also with the bills having less than ten days to run?

Answer. As regards the bills of the "Commercial," we reply affirmatively, and the same may be said of the bills having less than ten days to run. But it must be borne in mind that those bill had a very limited circulation, entering only into the more important transactions, and that they never circulated, properly speaking, as bank notes, they never had a general circulation, never substituted, in all transactions, the government issues.

Question 10. Was the rise in the price of coin owing to the redundancy of bank issues? If to other causes, what were they?

Answer. It is our opinion that the rise in the price of coin is due purely and solely to the redundancy of the currency, proceeding from an excessive issue of bank notes, in combination with the pre-existing government issues.

BANK COMPETITION.

In the United States, where the principle or operation of bank competition may be most closely studied, there is no doubt that the *final result* of their conflicts has manifested itself in the substitution of the notes of one bank by those of another. But these conflicts culminating in a crisis, are suspended only momentarily, to be renewed with the reappearance of confidence. It is a perfect game, in which all the private interests of society are put at hazard; and in no wise should it be supposed that bank competition offers any guaranty against a redundancy of the currency, against an abuse of the issue power by banks. At various times this matter has been the subject of rigid investigations before committees of the British House of Commons, and from the result of these investigations we gather that the Bank of England, possessed as it is of a giant capital, and exercising in money matters a Herculean power, has never been

able to control absolutely the monetary movement of the country. And if this be so in reference to the Bank of England, where should we hope to find a different result?

DIRECT OR INDIRECT INFLUENCE OF BANK EXPANSION AND CONTRACTION.

Banks certainly do exercise a most important influence, as well direct as indirect, upon the sum of transactions, in the rise or fall of the prices of merchandise, and upon the course of exchange. An expansion of the circulation signifies an increase of the currency, and by the law of supply and demand, the currency being rendered less valuable by this increase, everything which is exchanged for it increases in prices in the proportion of the depreciation. On the other hand, a contraction of the circulation signifies a decrease of the currency, and by the law of supply and demand, the currency being rendered more valuable by this decrease, everything which is exchanged for its decreases in price in the proportion of its appreciation. We may hence infer the *direct* action of a bank expansion or contraction, and if the influence of the bank movement were limited to this direct action—if it were in the *direct* proportion simply of the expansion or contraction—it would be less baneful. Unfortunately, however, this is not so. The *indirect* influence of expansions and contractions of banks of issue is so injurious that, of itself, it should be sufficient to banish them forever from intelligent communities.

An expansion began, there arises amongst all classes, and especially when the expansion is sudden and rapid, a species of delirium; credit assumes proportions of extraordinary development, inconsiderate engagements become the rule, and all in the conviction of an indefinite continuance of the millenium of bank expansion. The poor faithful! Disappointed hope! The expansion, as an infallible consequence, stimulating all prices, as well of the products of the country as of foreign merchandise, provokes an unbridled importation, whilst repressing the export trade. It is not long before the importer knocks at the bank-door for metal with which to make his remittances, seeing that the marvelous expansion maintains prices so disproportionable for the products of the country that they cannot be exported without a certain loss—the products of the country cannot be exported, and, as a consequence, there are no bills of exchange. For this reason the importer finds himself obliged to export metal. What do the banks do? Alarmed, they refuse discounts precisely at the moment at which their previous action has rendered them the most necessary, and, not content with this, they increase the rate of interest, (not in the United States—for there, fortunately, this power has been denied to them,) and to that delirium of joy which was so recently witnessed there succeeds consternation—a general panic—and from all sides is heard the cry of, *Sauve qui peut.* The hearts of men are converted into stone, the very foundations of morality are undermined, fraud and bad faith appear in every form, and the world, awhile since so smiling that it seemed to be realizing the true millenium, is converted into a very pandemonium. It is scarcely necessary to observe that, having thus presented the reverse of the picture, there may be seen there painted the effects of a contraction.

There are not wanting economists who believe they have found, in an increase of the rate of interest, a corrective of the over-action of trade. We do not share this opinion, but, on the contrary, consider it a pure

cruelty, without plausible excuse. The experience of the Bank of England has demonstrated, at least in the view of intelligent economists, its entire futility.

THE TRUE THEORY OF EXCHANGE.

In the reply which we had the honor to make to the second question, we somewhat enlarged; but, that we may be well understood, we desire to submit some further reflections upon what constitutes, in our judgment, the true theory of exchange.

The *basis principle* of monetary science was enounced by Adam Smith nearly a century ago. That profound philosopher seized, as if almost by intuition, upon the great truth, the basis of all logical or philosophical deductions with reference to the science of money. The principle emitted by Smith is—"That it is impossible to maintain in any country a paper circulation, *at the par of metal*, greater than the amount of metal which would otherwise circulate in such country if there existed no paper in substitution of it." The able Condy Raguet devotes a chapter of his work to the illustration of this principle, showing the process and the operation of the substitution of paper for metal.

From this principle, as Raguet well demonstrates, we deduce that, in an emission of paper money, we can never exceed the limits of the metal which would circulate in the absence of the paper without producing depreciation, and it may be considered an axiom of the science of money, that "redundancy and depreciation, in reference to metal, are convertible terms."

This being the case, and the true basis of the par of exchange between the two countries being the faithful maintenance of the relation between current money and metal, the fluctuations of the exchange above or below par, in this case, can never exceed, for any length of time, the cost of transporting metal. What, then, is the conclusion which should be deduced from the suspension of this infallible law of exchange? In our judgment, the exchange continuing for a long while, however little, below the par, demonstrates, without possible refutation, redundancy and the consequent depreciation of the currency. And this conclusion is the more striking when it is known that, amongst those who have given themselves the trouble of studying this question, however superficially, a *permanent* unfavorable balance of trade is a solecism—an impossibility; that the rigorous law of all foreign trade, involving imports and exports, is, "the active pursuit of the equilibrium;" this law becoming yet more rigorous when, from any overtrading or misfortune in the way of short crops, a country may have lost its metal.

This is, in our opinion, the true theory of exchange. In reference to the fluctuations within the limits of the *commercial* value of a currency, and the causes which produce them, we have sufficiently enlarged in our answer to the second question.

Art. IV.—JAPAN: ITS RESOURCES, TRADE, AND CURRENCY.

ARRIVAL OF AMBASSADORS—COURSE OF MODERN TRADE—SITUATION OF JAPAN—SIZE—POPULATION—DIVISIONS—SURFACE OF THE COUNTRY—AGRICULTURE—PRODUCTIONS—MINERALS—MANUFACTURES—LARGE CAPITAL—ITSIGOYA—INLAND COMMERCE—DISCOVERY—DUTCH INTRIGUES—BRITISH ATTEMPTS—AMERICAN MISSION—PERRY'S ARRIVAL—TREATIES—ENGLISH TREATIES—LORD ELGIN—EMBASSY TO UNITED STATES—MR. ALCOCK—GOVERNMENT ORGANIZATION—FEUDAL PRINCES—TRADITION ADVERSE TO TRADE—NON-INTERCOURSE—MULTIPLICATION OF TREATIES—RELATIVE VALUE OF METALS—TREATY STIPULATIONS OF LORD ELGIN'S TREATY—EFFECT UPON CURRENCY—EMBARRASSMENT OF THE GOVERNMENT—EXPORT OF GOLD—LOCATION OF MERCHANTS—YOKUHAMA SUCCESS OF THE LOCATION—TRADE—STATE OF GENERAL AFFAIRS.

The arrival of the Japanese ambassadors in this country with the treaty for ratification marks a new era in the commerce of the world, and one which may be productive of great advantages in the future. In the rapid progress of modern industry it has been the case that most of the nations of Eastern Europe and of North America have come to rival each other in almost all the products of manufacturing skill, and while communication and information are prompt and free, a degree of perfect liberality in respect of new inventions and processes has taken the place of that extreme jealousy which formerly guarded every petty trade secret from prying eyes, and which caused the arts to languish for so many ages. Each nation is able, or nearly so, to supply itself with all the comforts luxury required in the way of manufactures. The common want of all has come to be raw materials and raw produce, which the prolific soil of tropical climates gives in the greatest abundance. Hence, intercourse with those nations has become of more general importance. Chinese exclusiveness has been partially broken down, and events have now brought the hitherto little-known empire of Japan within the range of commercial intercourse, and European nations flock round the astonished tycoon in increasing numbers. The Empire *Zipangu*, or sunrise kingdom, is formed of a group of islands, lying between lat. 31° and 49° N., and long. 129° and 150° E. It is bounded north by the Sea of Okhotsk, east by the Pacific, south by China Sea, and west by the Sea of Japan, and is distant 5,000 miles from California, and 420 from China. The islands were discovered in 1542 by the Portuguese Governor of Molacca, who was driven thither by a storm. The chief islands are Sikokf, Kiusiu, and Niphon, the last named being the largest island of the world, having an area of 100,000 square miles, and being 900 miles in length by 100 in average breadth. The whole number of islands is about one thousand, and the area of the empire 170,000 square miles, or nearly equal to the New England States, with New York, Pennsylvania, and New Jersey. The political distribution is, 8 divisions, 68 provinces, and 622 districts, and the chief cities are Jeddo, the seat of government, Miako, and Osaka, in Niphon; Nagasaki, Saga, Kokura, and Toa Kanabe, in Kiusiu; Simoda, Kotsi, Takamatsu, and Matsugama, in Yesso. The people are Mongolian, and their numbers are estimated at 40,000,000, assuming the same density as China. Nothing is known, however, upon the subject. The rocky coast is indented with bays, and subject to gales and fogs. The face of the country is mountainous, giving birth to numerous rapid streams—none of great length. Rain is abundant, and is aided by systematic irrigation, conferring great fertility upon the soil, which is not allowed

much rest, since a law exists that land remaining unused for more than a year becomes forfeited to the public. Under such a rule the land is put to its proper use, and husbandry occupies all the valleys, climbing the ridges of the hills, until the useless plow is supplanted by hand labor on terraced slopes. The summer heats rise as high as 100°, and the cold of winter is frequently lower than the freezing point.

The intervales, or bottom lands, are in constant cultivation, and in the southern portion of the empire yield two crops annually, one of summer and one of winter grain. These bottoms are naturally level plains, or made so artificially. The great staple of the empire is rice, and wherever irrigation can be made available the land is planted with it. The accessible portions of rising ground and hills, as they recede from the plain, are graded, or if possible leveled, and planted with such vegetables as do not require moisture beyond what is usually supplied by the rains alone. Next to rice, tea is of the most importance, it being the almost universal beverage of the people.

Each family, or laborer, seems to have an allotment, divided from those adjoining by only a furrow, or even an imaginary line drawn from one landmark to another. These are all very small, apparently containing from half an acre up to two acres. The preparation of the land for the crops is principally by hand. The implements are nearly all of wood. The plow has the point shod with iron, but hoes and harrows are entirely made of the former material. The plow is not large, and is used only in light soil. A single bullock or horse is attached and driven by one man, while another holds the plow. The same is true of the harrow, which is used to reduce the soil to a perfect pulp, preparatory to transplanting rice shoots, which are treated in the same way as in China and other countries where it is cultivated. All their crops appear to be planted in drills, the distance between them being about a foot, and watered with liquid manure, which is collected in vats or pits, dug at suitable intervals on the side of paths and roads, and covered by light thatched roofs, which exclude too much heat and prevent excessive evaporation. In the region of Simoda, wheat and barley reach their maturity in April, and are harvested in June. No cotton or sugar-cane was noticed, but nearly every other production with which we are familiar in our climate was found, including potatoes, corn, fruits, and tobacco of a mild quality.

The mulberry tree is cultivated in great abundance, both for the purpose of rearing silk-worms and the manufacture of paper. This last article is used in the greatest quantity, and made available for innumerable purposes. It is made from the inner bark of the tree, and is of every degree of thickness and fineness, from a stout, strong article, down to a delicate silk-like texture. Much of the finer kind is beautifully stamped with figures, and portions with colored designs, like our muslins. The coaser sort serves for pocket handkerchiefs, and the finer is pasted upon frames to make light-shades. It enters into the structure of every house. It is fixed to large, light, sash-like frames, which extend from the ceiling to the floor. These are placed in grooves, along which they slide upon little chinaware wheels. In many houses they form most of the partitions, and by removing them, or replacing them, the apartments may be enlarged or diminished at pleasure. When used for the outside walls, they answer for windows, and the paper is protected from rain by the roofs projecting in the form of a portico. It also answers the purpose

of strings. A piece of the thicker sort is cut into narrow strips, rolled once or twice between the hands, making a stout and strong cord.

The products of the soil, as well as other valuables, are kept in storehouses built of a material that will withstand fire, and finished on the outside to a hard smooth surface like walls made of plaster of Paris. They are but one story in height, but large and commodious; their size averaging about fifty by twenty-five feet, with a fire-proof top, and the whole covered from the weather by light wooden roofs.

The mineral wealth of the empire is represented as very great. Gold, silver, copper, lead, quicksilver, coal, sulphur, salt, and iron to some extent. Marco Polo, in 1298, says the Japanese have gold in the greatest abundance, its sources being inexhaustible; but its export is prohibited.

These metals are the material of many manufactures, but the relative scarcity of iron makes its value nearly as great as copper. Many of the manufactures of the country are carried to great perfection. The lacquering of wood has long been famous, as excelling all other nations; cotton and silk goods are well made, and glass in all its branches of manufacture is carried to a great perfection, but singularly has never been applied to mirrors, which are of polished steel. Their swords are of the same material, and unequaled in quality. Paper of the mulberry tree is used for all purposes—writing and printing, and also for wrappers, and as handkerchiefs. In die sinking and carving, they are very proficient. There exist also tobacco factories, distilleries, and breweries on a large scale. Miako is the chief seat of manufactures for damasks, satins, taffetas, and other textile fabrics. At Osaka cotton goods and iron ware are mostly made. The power of adaptation is great, and every species of European product is speedily reproduced. A native factory produces Colt's revolvers and Sharp's rifles, and one large concern has already built a screw steamer, which plies between Jeddo and Nagasaki without European assistance. The internal trade of the country is very active. Many of the merchants are possessed of immense capital, and carry on the most extensive trade. A silk mercer of Jeddo was described in 1806 by the president of the Dutch factory as follows:—

"There is a silk mercer here named Itsigoya, who has shops in all the great towns throughout the empire. If you buy anything of him here, and take it away to another town, and no longer like it, you may return it if undamaged to his shop there, and receive back the whole sum paid for it at Jeddo. The wealth of this man is astonishing. During my stay at Jeddo there occurred a tremendous fire, that laid everything in ashes over an area of 3 by $1\frac{1}{2}$ leagues. Itsigoya lost on this occasion, besides his shop, a warehouse containing upwards of 100,000 lbs. of spun silk, which loss fell altogether upon himself, the Japanese knowing nothing of insurance. Notwithstanding this he sent forty of his servants for assistance during the fire. The second day after the fire he began to rebuild, paying every carpenter ten shillings sterling per day."

There are no restrictions upon inland commerce of any nature, and interchange is promoted by great fairs held at Miako. The external commerce has never been great. It has been confined to the Chinese and Dutch. After the discovery of Japan by the Portuguese, but little progress was made in intercourse until about 1550, when great efforts were made by the priests to convert the people, and with such success that one-third of the people are said to have become Christians. This

awakened the ire of the government, which caused all the priests and their converts to be massacred. The Dutch were accused of having instigated the murders; at all events, they enjoyed the fruits of it, in being the only nation subsequently allowed to trade therein. In 1613, the first English vessel arrived at Japan. It was in the East India Company's service. The captain, Saris, obtained liberty for the English to trade, but the results were not important, and they were again subsequently excluded through the opposition of the Dutch. In 1673, the East India Company made an effort to revive the trade, and vainly expended £55,000 with that object. The Dutch enjoyed for two centuries a monopoly of the trade at their factory at Firando.

In 1852, some American seamen were wrecked on the coast of Japan, and being harshly treated Commodore Perry was dispatched thither to demand protection for distressed seamen, and to negotiate, if possible, a treaty by which American vessels should be allowed to enter one or more ports to obtain supplies and for purposes of trade. In February, 1854, seven American ships under Perry entered the bay of Jeddo, and March 31, a treaty was agreed upon, dated at Kanagawa, although signed at Yokohama, a neighboring village. By this treaty the ports of Simoda and Hakodadi were appointed for the reception of American ships, and protection and assistance were guarantied to shipwrecked seamen. Liberty to trade, under certain restrictions, was also granted, and American consuls permitted to reside at Simoda and Hakodadi. In the following September Sir James Stirling with English ships entered the harbor of Nagasaki, and concluded a treaty between Japan and England, by which Nagasaki and Hakodadi were opened to foreign commerce. The Russians subsequently made a treaty, November 9, 1855. June 17, 1857, a new treaty was made on behalf of the United States by Townsend Harris, United States Consul-General for Japan, by which the port of Nagasaki was also opened to American trade, and additional privileges granted to American merchants. In 1858, Mr. Harris, having reached Jeddo, negotiated a third and still more favorable treaty on behalf of the United States. In the same year the Earl of Elgin, British ambassador, arrived at Jeddo, and, August 26, concluded a treaty, by which the ports of Hakodadi, Kanagawa, and Nagasaki were opened to British subjects after July 1, 1859; Nee-e-gata, or some other port on the west coast of Niphon, after January 1, 1860, and Hioga after January 1, 1863. Various commercial privileges were also obtained. Soon after, the reigning tycoon suddenly died at the age of 31, and was succeeded by the present emperor, who is represented as of very liberal commercial and political opinions. Pursuant to these proceedings, an embassy from Japan was dispatched to the United States, leaving Jeddo, February 22, 1860. Their arrival at Washington, with the ratified treaty, was marked by flattering demonstrations.

Under the stipulations of the treaties made by Lord Elgin and Mr. Harris, the new trade regulations came into force July 1, 1859, at which time Mr. Alcock had arrived at Nagasaki in the character of British Consul-General and Minister Plenipotentiary, and established Mr. Hodgson as Consul at Hakodadi. Mr. Alcock proceeded to Jeddo, where the exchange of treaties took place in an impressive manner. The development of trade under the force of treaties encountered some difficulties from the nature of the Japan government. That seems to be far from

an absolute monarchy. The management of foreign affairs in Japan is intrusted to a sort of council, composed of a minister of foreign affairs and five governors; the minister at the head being also one of the highest members of the Council of State, and, as would appear to be invariably the custom in Japan, he has his double in another minister, who, on all public occasions, sits by his side and takes part in the business.

Besides this council, with which foreign representatives have officially to transact all their business, their is an oligarchy composed of all the hereditary Damios, proprietors of three-fourths of the soil, and with many attributes of sovereignty attaching to their fiefs, constituting the great council of the nation, *en permanence*, since one-half of them are always at Jeddo. The tycoon, or monarch, is little more than their nominee and executive, and for the last generation or two, at least, the choice has always fallen on the candidate related to, and supported by, three or four of the most influential Damios. While thus constituting a permanent council, and wielding a decisive influence over the action and policy of the tycoon's government, they are in a position to exercise an independent and, to a great degree, an irresponsible power throughout the empire, each in their several States or territories. As chief proprietors of the soil, its products and the various channels of commerce through their estates are subject to their control. Jeddo and the two ports of Nagasaki and Hakodadi are severally in the Imperial domain, but the domains of the Damios intercept all the lines of commerce to and from the interior and the great centers of trade and produce. No trade, therefore, to any extent, can take development without their consent. They hold, moreover, a power of life and death over all within their territorial jurisdiction; and the administration of justice is equally in their hands, uncontrolled, except in so far as established laws and customs may place any check on the arbitrary will of the lord or his delegates. The coal mines are all their property; also those of copper, lead, silver, and all the other sources of mineral wealth in which the country is said to abound. It should be remarked, *en passant*, that the importance of the Japan commerce to the maritime nations would principally rest on the coal thence to be supplied, and generally on the export of its mineral wealth. But throughout the empire there prevails a settled conviction of the danger of exhausting the mineral resources of the country, and the impolicy and injustice of doing so, if even for their own profit, in any one generation. All mineral products are looked upon as in great part the inheritance of posterity, being, unlike the produce of the soil, unsusceptible of reproduction; and, therefore, they hold them not to be at the disposal of any one generation, save for it own reasonable and immediate wants. Now, the Damios, or territorial magnates, the proprietors of the land, the mines, and all the lines of commerce, form, as in all aristocratic countries, a powerful center of the so-called national prejudice. It is they who mainly cling to the traditions of the past, and represent all the hostile and antagonistic tendencies of Japan to all extension of foreign relations or commerce.

All these traditions are based upon non-intercourse with foreigners. The memory of the dangers that two centuries since attended the intercourse with the Dutch and others dwells in the public mind, and particularly operates upon the conduct of these powerful feudal chiefs. That ancient policy was suddenly invaded by the rapid arrival of foreigners,

demanding treaties. The Americans, Russians, Dutch, English, were followed by Denmark, Sweden, and Belgium, of whose commissions rumors reached Jeddo, when the results of the first treaties had been already dearness and scarcity, and a source of uneasiness sprang up in relation to the currency. The metals are all produced in Japan in abundance for their own wants, but there being no foreign trade the relative value of the metals to each other was governed by the home supply, and not by the value of those metals in the markets of the world. Thus iron is more scarce than copper, and it is held at about the same value. Copper is overvalued in regard to silver, and that metal again in respect of gold. The relative value of gold to silver in the United States is nearly 16 to 1, and legally in France and England 15 to 1. In Japan it has been 5 to 1, and the export of gold has been prohibited. Inasmuch as there was no foreign intercourse, no inconvenience arose from this state of things. By article ten of Lord Elgin's treaty, provision is made that all foreign coin shall pass current in Japan, and for corresponding weights in Japanese coin of the same description, gold for gold and silver for silver. It is further stipulated, that for the period of one year after the opening of the ports the Japanese Government will furnish British subjects with Japanese coin in exchange for theirs, equal weights being given, and no discount taken for recoinage; while Japanese coins of all descriptions, except copper, may be exported. The description of foreign money, the free circulation of which throughout the country was actually contemplated, was the dollar.

A gold kobang, intrinsically worth from $3 63 to $3 87, (there being some variation in the alloy between new and old coins,) only represents four silver itzebous, or an ounce and a third of silver. When the treaty was made, the silver currency consisted of itzebous, half-itzebous, and quarter-itzebous; three itzebous being equal in weight to a dollar, and the rest in proportion. Copper cash, however, formed the base of the monetary system, one itzebou being worth 1,800 cash. It appears that, as gold is undervalued by 200 per cent as against silver, silver is undervalued by about 7 per cent as against copper. This system, which gave a purely fictitious value to the silver coins in relation to gold, converting them, in fact, into mere silver tokens with a value derived, not from their weight, but from the government stamp fixed upon them, did by no means interfere with the Japan foreign trade, since the latter was only a barter trade, the coins being in circulation only among Japanese. All this was now suddenly changed. A dollar and a third would now have been exchanged by weight with four silver itzebous, and consequently have bought a golden kobang, intrinsically worth $3 63 a $3 87. The empire would have been swindled out of its gold in no time, the operation being facilitated by the government itself, being bound to give itzebous for dollars, weight by weight. The gold once carried off, the turn of the silver would have come, because of its undervaluation in relation to copper.*

The greatest activity in exporting the gold at once commenced. The Japanese Government consequently adopted the expedient of issuing a new silver coinage of larger silver pieces, called half-itzebous, two of which were equal to a dollar in weight. In other words, instead of directly raising the

* For an assay of Japan coins, see page 88 of the present number.

value of gold, they adjusted the relation of gold to silver, by giving to a larger piece of silver, to be used in exchange for dollars, a lower denomination. By secret understanding with their subjects, and some bureaucratical contrivances, this currency was to be passed only in exchange for dollars, and then to be returned to the treasury at the rate of the value indicated, not by its weight, but by its denomination.

This regulation was speedily repealed, and the government undertook to receive from merchants dollars and recoin them into itzebous free of charge. At the latest dates, the Japanese were exchanging $10 to $15 per diem into itzebous for each applicant, which was but a trifle toward supplying the wants of purchasers of cargo. Cargo could be bought for itsebous 15 to 25 per cent cheaper than for dollars; $100 exchanged at the custom-house produces 811 itsebous; 260 of those itzebous taken into the street will buy again 100 Mexican dollars. Accordingly, the native merchant must, if he is to receive dollars for his goods, make his price to suit. At the request of the foreign ministers and consuls, the Japanese Government agreed to put a government mint mark on all foreign dollars, expressing their value at three itzebous each. This stamping of dollars was expected daily, but without much hope of success.

This troublesome currency question was succeeded by that of location for the merchants. Article three of Lord Elgin's treaty had provided for a location of British merchants at Kanagawa. This town lies along the upper edge of the bay, and consists mainly of a long line of houses on each side of the "tocada," or road, leading from the capital, and forming communication with every part of the empire, and constantly used by the Damios in journeying to and from the court. These princes never stir out without numerous led horses, grooms, bands of officers and armed retainers, his progress altogether resembling that of a lord of medieval times. The Japanese Government, in the interest of conciliating a powerful party among the Damios or feudal princes, as well as of removing constant opportunities for bloody quarrels between the natives and the foreigners, had to select for foreign settlements sites out of the lines of the route of the Damios to the capital in their frequent progress, in great state, to and from the court of the tycoon. They consequently indicated a site opposite to the town, at a distance of some three miles from Kanagawa, on the lower or southern edge of the Bay of Kanagawa, (an inlet from the larger Bay of Jeddo,) as a new settlement for the occupation of foreigners and native traders. It consisted of wooden huts and streets of shops, extending three-quarters of a mile, with a custom-house or official timber-house of larger dimensions. The approach was marked by two really imposing and beautifully constructed landing-places, with flights of well-laid granite steps of great extent. Massive jetties of great extent had been built, and, in order to shorten the access to Kanagawa, three miles of roads connected with the opposite site by several bridges were constructed. This new settlement for the extensive works of which the Japanese Government had incurred large expenses, was called Yokuhama. This site, in point of facility of access from the bay, with the aid of the fine jetties built and depth of water, the free and open space on shore, the greater water frontage, and the easier approach at all times of the tide, was unobjectionable. Nevertheless, the British minister, in a spirit of red-tapeism, complained that it was not at the precise spot pointed out by the treaty. The mercantile interest recognized the advantages at once. An American schooner discharged her cargo there; the

Dutch merchants rented the stores; a branch of the British house of Jardine, Matthews & Co. occupied them, and the rush and whirl of trade commenced. A correspondent of the New York *Tribune*, under date of February 25th, remarks:—

"Despite all the remonstrances and protests of the foreign representatives, Yokuhama will be the port of trade, vice Kanagawa, omitted. In vain have letters been written, protests made, threats hinted at; the Japanese have quietly gone on putting up houses and stores at Yokuhama, not by the row or street, but by the acre; while foreign ministers, hampered by doubtful powers, have been writing dispatches, they have been building houses. The foreign merchants have too large investments of houses at Yokuhama to so much as raise the question of leaving. Since the mountain will not come to Mohammed, Mohammed must come to the mountain. The foreign representatives are yielding as gracefully as possible to the force of circumstances; protesting on paper against the occupation of Yokuhama, and tacitly allowing it. It is a foregone conclusion; the Japanese are masters of the field, and Yokuhama carries the day against Kanagawa.

"Trade is active. A dozen vessels are in the bay receiving cargo, which goes mostly to China, with an occasional venture to England or the United States. There are not less than thirty foreign houses in the trade. Japan has lately discovered a new article of export. Maj. Foublanque, of the British service, is in the market purchasing horses for the great Chinese campaign of 1860. His wants are 3,000 horses, which he obtains through the Japanese Government at an average price of $20 to $25. Several hundred have already been purchased, and, judging from their looks, Japan is likely to be rid of some sorry nags. But we need not be scrupulous about the looks of pack-horses; and horse flesh for the cuisine, our French cousins declare, is none the worse for age. The horse is the universal beast of burden in Japan, and a demand for 3,000 will make no serious impression on the market. Wheat flour, which is very cheap, is going forward in large quantities also. Bullocks are abundant and cheap, and are likely to be numerously shipped to China. The Chinese war will make a great demand for the surplus chow-chow of Japan, and revive the drooping trade of the foreign merchants."

Thus commerce has fastened its civilizing hand upon that coy empire, and she is fairly introduced into the great family of nations. What she has to contribute to the common weal is yet undecided. She may rival China to some extent in supplying tea and silk, and may be a customer for iron in return. In the process her scale of the metals must undergo a great change. It is quite probable, however, that the expectations of the great nations now flocking thither, to share the fancied advantages, may to some extent be disappointed.

JOURNAL OF MERCANTILE LAW.

COLLISION—MUTUAL FAULT—PLEADINGS—JURISDICTION.

In the United States District Court—in Admiralty. Before Judge Betts. Alfred H. Hovey *vs.* the steamboat Francis Skiddy.

This case came up on exceptions to the report of the Commissioner to whom the case was referred under the rules of January term, 1859.

The action was brought by the owners of the canal boat Atlantic to recover the damages occasioned by her being run into by the Skiddy on the Hudson River. The boat was in tow of the steam-tug Illinois. There was a fog upon the river so thick that the boats were first warned of their dangerous proximity by the noise of each other's paddles, at a distance of some two or three hundred feet apart.

The Commissioner reported in favor of the libelants.

Held by the Court.—That the Commissioner had authority to hear the case under the rules.

That the cause is one of Admiralty jurisdiction.

That on the facts both vessels were culpable in being kept under headway in such a state of the atmosphere, though their fault was mitigated by their being driven at so low a rate of speed.

That if this fault had continued till the collision, it would have been a case of mutual fault, calling for an apportionment of the damages.

That on the proofs, however, the tug stopped and backed at such a distance that a like proceeding on the part of the Skiddy would probably have prevented a collision, and this fault no longer remained common to both.

That when it was ascertained on the Skiddy that she was stopping in a critical closeness to the tug, she was started ahead, crossing the bows of the tug, and that this proceeding was a fault casting the blame of the collision upon her.

That the pleadings on both sides are faulty in not setting forth distinctly all the facts material to be proved to support the case of the prosecution or defence, and proofs on those points not alleged would have been legally inadmissible.

That the court also might refuse to decide those points not specifically at issue on the pleadings, but as the case has been fully discussed on the merits, and the pleadings can be reformed on an appeal, if one is taken, the court will decide on the law and facts of the case, that the findings of the commissioner are correct, and that the exceptions must be overruled.

Decree, therefore, for libelants, with a reference to ascertain the damages.

CHARTER—MUTUAL COVENANTS—JURISDICTION.

In the United States District Court—in Admiralty. Before Judge Betts. Rafael F. Torrices *vs.* the ship Winged Racer.

This action is brought on a charter of the ship by the owners to the libelant in July, 1857, for a voyage to China and thence back to Havana with a load of Coolies, not less than 884 in number, for which the libelant was to pay freight, $67 50 apiece to the ship, and a further sum to the master. The clause of the charter which the libel sought to enforce was as follows:—"The penalty of non-performance of this contract is mutually fixed at half the amount of freight, and to the accomplishment of the same, the charterer engages his whole responsibility, and the owners their vessel, rigging, &c., as by law. The ship to have a lien upon the passengers for the freight money."

The libel was filed to recover this penalty, amounting to $28,951, alleging that the ship prepared for the voyage, cleared at the Custom-house, but after its commencement the owners broke it up and neglected to perform it.

Held by the Court.—That by the maritime law a ship is not bound to the performance of a contract for her employment, unless there be mutually a liability charged on cargo on board for the satisfaction of those services. When the contract is for the prospective employment of a ship in transportation of cargo which is not placed on board, the remedy for a breach of such contract is in the common law courts.

That the clause in the charter by which the owners engage "their vessel, rigging, &c., *as by law*," subjects the security to the operation of the law maritime upon credits of that character.

That the libelant therefore shows no lien upon the vessel of which the court can take cognizance, and the exception to the jurisdiction of the court must therefore be allowed.

Libel dismissed.

CHARTER—BILL OF LADING—CARGO ON DECK—JETTISON—JURISDICTION.

In the United States District Court—in Admiralty. Before Judge BETTS.

N. Foster Higgins, *et al.*, *vs.* Barron C. Watson, *et al.*

The libelants were the owners of the schooner B. S. Johnson, which was chartered on August 6, 1858, to the respondents by her master, for a voyage from two ports in North Carolina to New York, the respondents engaging to provide the vessel with a full cargo of resin and spirits of turpentine in barrels under deck, and with a deck load of resin in barrels, and to pay the master or agent a certain freight for resin and spirits of turpentine under deck, an another rate of freight for resin on deck. The master signed two clean bills of lading for resin shipped on board, one deliverable to the respondents or their assigns, and the other deliverable to a third party. The vessel arrived in New York September 24, 1858, and delivered to the respondents 106 barrels of resin less than the number of barrels called for by the bills of lading, that number having been swept from the deck or jettisoned by reason of sea perils. The master duly assigned the charter-party to the libelants, who brought this action to recover the freight according to the charter, while the respondents claimed that as the bills of lading were clean bills, the libelants were responsible for the loss of the resin shipped on deck.

Held by the Court.—That the owner of a vessel is not liable for the loss by sea perils of goods laden on deck with the consent of the shipper, when no culpable neglect or misconduct is attributed to him in their destruction or jettison. (17 How. R., 100.)

That the charter-party in this case, and not the bills of lading, form the controlling contract of shipment, and governs the rights of the parties, which are not changed by specifying a different rate of freight in the bills of lading.

That the objection that an action upon a charter-party is not within the jurisdiction of the court, cannot be maintained.

Decree for libelants, with a reference to ascertain the amount of the charter-money due.

SEAMEN'S WAGES—UNAUTHORIZED EMPLOYMENT.

In the United States District Court—in Admiralty. Before Judge BETTS.

William J. Gilligan and twenty-three others *vs.* the ship Winged Racer.

This was a libel on behalf of seamen to recover wages against the vessel, by reason of the failure of a voyage to China and back, for which they had shipped. They were shipped in this port by a broker, at the request of one HANNA, who was alleged to be the master of the ship, and four of them rendered themselves on board to do duty. HANNA testified that he had possession of the ship at the time as master, but did not prove any authority from her owner, and testified also that she was shortly afterwards taken possession of by the United

States Marshal under process, and the voyage was broken up, and he had not had possession since. The claimants offered depositions to show that HANNA's possession was an unauthorized usurpation of her, but that evidence was excluded by reason of informality in the certificate of the commission.

Held by the Court.—That the libelants do not furnish sufficient proof that HANNA's possession was such as to authorize him to encumber the ship with the charge of wages of a crew. There is no evidence that he brought the vessel to this port, or ever exercised any control over her, except in directing the broker to ship the crew. He may have wronged the libelants, but there is no proof which can authorize the court to redress that wrong at the expense of the lawful owners, who on the proofs must be deemed wholly innocent of any misconduct on his part.

Libel dismissed, but, as the libelants are seamen, without costs.

TOWING—DAMAGES.

In the United States District Court—in Admiralty. Before Judge BETTS.

Ebenezer Goodwin, *et al.*, *vs.* the tug-boat C. Durant.

The libelants, owners of the bark Elizabeth, sue to recover $212 50 damages, alleging that in October, 1856, they employed the tug to tow the bark to sea, and that in doing so she carelessly towed the bark against a schooner, injuring the bark to the amount of $100, and the schooner to the amount of $112 50, which the libelants had to pay.

The evidence showed that the libelants first employed the tug to tow the bark from a dock in Brooklyn to anchorage ground in the North River, on which voyage the injury spoken of took place, and then made a subsequent agreement that the tug should tow the bark to sea for $30.

One of the libelants brought with him a pilot to superintend the removal of the bark to the North River, and the manner of hauling her from the dock and conducting the voyage was conducted by them, and the pilot in charge of the tug followed their orders.

Held by the Court.—That the gist of the action rests in contract and not in tort.

That if the bark received injuries by negligence in the management of the tug, that fault was attributable to the libelants and their agent, the pilot, and not to the owners of the tug, who acted pursuant to the directions of the libelant and the pilot.

Libel dismissed, with costs.

JURISDICTION—TOWING CONTRACT.

In the United States District Court—in Admiralty. Before Judge BETTS.

Benjamin F. Betts, *et al.*, *vs.* Eben Goodwin, *et al.*

This was a cross action tried with the preceding, brought by the owners of the C. Durant to recover the $30 for towing the vessel to sea.

Held by the Court.—That the court has jurisdiction of the action. The terminus of the service in fact happened within the exterior boundaries of the State, but the contract was indefinite as to distance, and required that the steamer should tow the bark far enough out on the high seas to enable her to clear herself from the shore, and was accordingly in principle not confined to a place within the State. Its meaning, as well as its terms looked to placing the bark fully and effectually at sea. It was, therefore, a maritime contract.

The merits of the controversy as to the damage to the bark were decided in the previous case.

Decree, therefore, for libelants for $30, with interest from the commencement of the action, the day of the contract not having been proved.

COMMERCIAL CHRONICLE AND REVIEW.

DECLINE IN THE VALUE OF MONEY—DECLINE ABROAD—THE INVASION OF SICILY—STAGNATION OF BUSINESS—FALLING PRICES—CROPS OF FOOD PROMISE WELL—CHECKS MERCHANTS HERE—LARGE EXPORTS—COTTON—BREADSTUFFS—NO ENTERPRISE TO DEMAND CAPITAL—CAPITAL AND TRAVEL TEND TO NEW YORK—POPULAR ATTRACTIONS—CENTRAL PARK—GREAT EASTERN—PRINCE OF WALES—JAPANESE EMBASSY—TRAVELERS TO EUROPE—TABLE OF NUMBERS—RAPID INCREASE—IMPORTANCE OF THE EXPENDITURE—STEAM FACILITIES—INFLUENCE ON HOTELS AND BUSINESS—CRYSTAL PALACE EXCITEMENT—ITS RESULTS—PLETHORA OF MONEY—TABLE OF RATES—CHEAPER THAN EVER—PAPER BETTER CHARACTER—BANK DISCOUNTS—RATES OF EXCHANGE—SHIPMENTS OF SPECIE—TABLE OF—FALL OF MONEY IN LONDON—SUPPLIES OF SPECIE—ASSAY-OFFICE—MINT—COINAGE—LAW OF 1853—SILVER COINAGE—GREAT SUPPLY OF CURRENCY—EFFECT UPON BANK CIRCULATION—DRIVES OUT GOLD—REDUNDANCY OF CHEAP MONEY—IMPORTS.

THERE has been a rapid decline in the value of money at home and abroad, arising mostly from the stagnation of business enterprises. The rate of money at the Bank of England, which had been put up to five per cent in April under exceptional influences, declined to four-and-a-half, and with the stagnation in business enterprises which followed the news of the descent of Garibaldi upon Sicily, it again declined to four per cent, and was dull outside of the Bank at three-and-a-half, and could with difficulty be loaned upon the stock exchange at any rate of interest. The buyers of goods, in the manufacturing districts, for continental account, were very cautious, and business generally was not such as to employ much capital or to tempt speculation. The growing harvests promised so well that prices of produce were mostly dull, and did not tempt investment. The cotton crop, at the same time, continues swelling in magnitude to an extent that weakens values, in face of the checks which the markets for goods have received. These circumstances have influenced the markets here in a similar manner, and the value of money has declined in face of lessened enterprise, while the exports from the port, as will be seen by reference to the monthly tables hereto appended, have been large. The exports of cotton and breadstuffs from the United States, since September 1, have been, in quantities, as follows :—

	1859.	1860.	Increase.
Cotton.....bales	2,701,044	3,567,509	866,465
Flour.....bbls.	130,859	270,476	139,617
Wheat.....bush.	503,415	941,985	438,570
Corn.....	331,316	507,314	175,998

These quantities represent alone an increased value of nearly $46,000,000, and are a large amount added to the capital of the country, as far as sales have been realized. The stagnation of the merchandise markets from political causes, and of the food prices by reason of the crops, prevent capital from embarking in produce, and there are no other enterprises which, for the moment, attract investments. This, since the check of 1857, has been slowly returning to first hands from the West, while the South, having realized abundant crops at high prices, has been liberal in payments and expenditures. Inasmuch as that New York is the general focus to which capital tends for employment, as well as for persons of leisure and those seeking business, there is an affluence of money and persons at the metropolis this season. The attractions at this time are the visit of the Great Eastern, the popular "progress" of the Japanese, and the

"royal progress" of the Prince of Wales. These, in connection with the fame of the great Central Park, swell the number of those visitors who seek the city in such increasing numbers, coming and going from Europe. This latter item has reached an importance which is seldom borne in mind. There are no official figures for the number of those who leave the country, but the number of those who return is given in official figures. The numbers who have arrived, in periods of five years, during the last thirty years, have been as follows:—

	Male.	Female.	Total.
1830-34	6,622	1,771	8,393
1835-39	21,014	5,497	26,511
1840-44	24,264	7,990	32,254
1845-49	15,688	5,009	20,697
1850-54	118,447	12,557	131,004
1855-59	105,965	24,368	130,333

It will be observed that the number of females, denoting the proportion of families that travel abroad, has rapidly increased, and during the last five years they have reached 24,368, out of a total number of 130,333 citizens arrived home. These crowds of persons swell the hotel business, both going and coming, and should be doubled to indicate the number of visitors. This would be 260,000 in the last five years. or 52,000 per annum—say 1,000 per week. The expenses and outlay of these persons count several millions, and in the last ten years the sum has increased six-fold. The greater proportion of females indicate that they are not merely business visits, but are the result of those pleasure tours that flow from increasing individual wealth, and the facilities which the great steam lines afford for crossing the ocean. This stream of travel has been a material element in the hotel building in New York and in the progre s of business towards the upper end of the island. The present year seems to promise, therefore, as much local city business for New York as grew out of the Crystal Palace in 1853. That excitement was followed by a partial stagnation of business at the last, and a current of enterprise towards the West, which ultimately reacted in 1857. That section now shows some signs of recovery, but there is yet wanting that decided action which a large foreign demand for breadstuffs would impart. The crops promise well, and there is every element of abundance, should an adequate outlet be offered. The plethora of money is, therefore, very great now in New York. It is probably cheaper than ever at this season, as well at call as on paper. The rates are as follows, comparatively:—

	On call.		Indorsed		Single	Other	Not well
	Stocks.	Other.	60 days.	4 a 6 mos.	names.	good.	known.
Jan. 1st, 1859.	4 a 4½	4 a 5	4 a 5	5 a 6	6 a 7	7 a 8	8 a 10
Feb. 1st.....	5 a 6	6 a 7	5 a 6	6 a 7	7 a 7½	8 a 9	9 a 10
Mar. 1st.....	4 a 5	4½ a 6	4½ a 5½	5½ a 6½	6 a 7	7 a 8	9 a 10
Apr. 1st.....	4 a 5	5 a 6	5 a 5½	6 a 6½	6½ a 7	8 a 9	9 a 10
May 1st.....	5 a 6	6 a 7	6 a 6½	6½ a 6	7 a 9	9 a 10	10 a 12
Jun. 1st.....	6 a 7	7 a 8	6½ a 7	7 a 8	8 a 9	9 a 10	10 a 12
July 1st.....	5 a 6	6 a 7	6½ a 7	7 a 7½	8 a 9	10 a 12	12 a 15
Aug. 1st.....	6 a 7	7 a 8	6½ a 7½	7 a 8	8 a 9	11 a 13	12 a 15
Sept. 1st.....	5½ a 6	7 a 8	6 a 7	7 a 7½	8 a 8½	11 a 14	12 a 16
Oct. 1st.....	5½ a 7	6 a 7	6½ a 7	7 a 8	8 a 9	10 a 12	12 a 18
Nov. 1st.....	5 a 5½	6 a 7	6½ a 7½	7½ a 8	8½ a 9½	12 a 15	12 a 18
Dec. 1st.....	5 a 5½	6 a 7	6 a 7	7 a 8½	8 a 9	9 a 10	12 a 18
Dec. 17th.....	5½ a 6	6 a 7	7 a 7½	7½ a 8½	8 a 9	9 a 10	12 a 18
Jan. 1st, 1860..	6 a 6½	6½ a 7	7 a 7½	7½ a 8½	7½ a 8	9 a 10	12 a 18
Jan. 15th.....	7 a 7½	7 a 7½	8½ a 9	9 a 9½	9 a 10	10 a 11	15 a 20

	On call. Stocks.	On call. Other.	Indorsed. 60 days.	Indorsed. 4 a 6 mos.	Single names.	Other good.	Not well known.
Feb. 1st.....	6 a 6½	7 a 7½	8½ a 9	9 a 9½	9 a 10	11 a 12	15 a 20
Feb. 15th.....	5 a 6	6 a 7	7 a 7½	7½ a 8	8½ a 9½	10 a 12	15 a 18
Mar. 1st.....	5½ a 6	6 a 7	7 a 7½	7½ a 8	8½ a 9½	10 a 12	15 a 18
Mar. 15th.....	5 a 5½	5½ a 6	6 a 7	7½ a 8	8½ a 9½	10 a 12	15 a 18
Apr. 1st.....	5 a 5½	6 a 6½	5½ a 6	6 a 6½	6½ a 7½	9 a 10	11 a 13
Apr. 15th.....	5 a 5½	6 a 6½	5½ a 6	6 a 6½	6½ a 7½	9 a 10	11 a 13
May 1st.....	5 a 5½	6 a 6½	5 a 6	6 a 6½	6½ a 7½	9 a 10	11 a 12
May 15th	5 a 6	6 a 6½	5 a 6	6 a 7	6½ a 7½	9 a 10	10 a 12
June 1st.....	4½ a 5	6 a 6½	5 a 6	6 a 7	6½ a 7½	8 a 9	9 a 10
June 15th	4½ a 5	5 a 6	4½ a 5	5 a 5½	5½ a 6	6 a 7½	8 a 9

At the close of 1858, after the severe pinch that followed the panic, money was cheaper than now, because there was little or no employment for it or confidence in promises. Last year, in June, money was worth at "call" two per cent more than now, when it is two-and-a-half per cent cheaper than in January. On good paper it is cheaper than at any time since the panic. This, no doubt, arises from the fact that the market is to a considerable extent purged of the paper tainted by "extension," and also that the demand for money is far less than usual at this season. The line of bank discounts is higher than at the same period last year, when it was rapidly falling. The decline in the value of money this year has been attended by a rise in the rates of exchange and a resumption of the specie shipments. The rate of interest on short paper has fallen one per cent since the middle of April, and sterling bills have risen one per cent since that date, when, also, the shipments of specie recommenced. The rates of bills are as follows:—

RATES OF BILLS IN NEW YORK.

	London.	Paris.	Amsterdam.	Frankfort.	Hamburg.	Berlin.
Jan. 1..	9 a 9⅛	5.18¾ a 5.17½	41⅝ a 41½	41½ a 41⅜	36½ a 36⅜	73 a 72⅞
15..	8½ a 9	5.21½ a 5.18¾	41½ a 41½	41½ a 41½	36⅝ a 36⅜	73⅛ a 73⅛
Feb. 1..	8⅞ a 9	5.18¾ a 5.17½	41½ a 41½	41⅝ a 41⅜	36⅝ a 36⅜	73⅛ a 73⅛
15..	8½ a 9	5.18¾ a 5.17½	41⅝ a 41½	41½ a 41⅜	36½ a 36½	73⅛ a 73½
Mar. 1..	8⅛ a 9	5.17½ a 5.15	41½ a 41⅜	41⅜ a 41⅜	36⅜ a 36⅜	73⅛ a 73⅜
15..	8⅛ a 8⅞	5.17½ a 5.15⅝	41⅛ a 41⅜	41⅛ a 41⅜	36⅜ a 36⅝	73½ a 73⅝
Apr. 1..	8⅛ a 8⅞	5.18¾ a 5.16¼	41½ a 41⅛	41½ a 41⅜	36⅜ a 36⅝	73½ a 73⅝
15..	8⅛ a 8⅞	5.16¼ a 5.17½	41⅛ a 41½	41⅛ a 41⅜	36½ a 36⅝	73½ a 73⅝
May 1..	9½ a 9½	5.13¾ a 5.12½	41½ a 41⅜	41⅜ a 42	36⅝ a 36⅞	73½ a 73⅝
15..	9⅜ a 9½	5.13¾ a 5.13¼	41⅛ a 41⅜	41⅜ a 42	36⅝ a 37	73⅝ a 73½
Jun. 1..	9⅜ a 9½	5.13¾ a 5.12½	41⅝ a 41⅜	41⅜ a 42	37 a 37½	73⅝ a 73⅞
15..	9½ a 9⅜	5.13¾ a 5.12½	41⅛ a 41⅛	41⅜ a 42	36⅝ a 37½	73⅝ a 73⅞

Up to the middle of April the shipments of specie this year had been $5,394,295, against $12,312,708. Since that date the shipments have been $12,000,000, without much affecting the amount in the city—the supplies from the interior being large. The shipment of the last week in May last year was the largest on record, and it was followed by continued large shipments, without, however, producing any influence upon the value of money. The comparative specie movement has been as follows:—

GOLD RECEIVED FROM CALIFORNIA AND EXPORTED FROM NEW YORK WEEKLY, WITH THE AMOUNT OF SPECIE IN SUB-TREASURY, AND THE TOTAL IN THE CITY.

	1859. Received.	1859. Exported.	1860. Received.	1860. Exported.	1860. Specie in sub-treasury.	1860. Total in the city.
Jan. 7.....	.....	$1,052,558	.....	$85,080	$7,737,965	$25,600,699
14.....	$1,376,300	218,049	1,788,666	88,482	7,729,646	26,470,512
21.....	.....	567,398	.....	259,400	8,352,485	27,585,970

	1859.		1860.			
	Received.	Exported.	Received.	Exported.	Specie in sub-treasury.	Total in the city.
28.....	1,210,713	467,694	1,760,582	81,800	8,957,128	29,020,862
Feb. 4.....	.....	606,969	.....	94,569	427,457	9,010,569	28,934,870
11.....	1,319,923	861,550	1,476,621	92,350	9,676,732	29,464,299
18.....	.....	1,013,780	.....	592,997	10,012,572	30,603,762
26.....	1,287,967	858,554	1,393,179	202,000	8,955,203	29,729,199
Mar. 3.....	.....	1,427,556	382,503	667,282	8,734,028	31,820,840
10.....	933,130	807,106	1,198,711	115,473	8,237,909	30,139,089
17.....	.....	870,578	152,000	429,260	8,099,409	31,271,247
24.....	.....	208,955	895,336	465,115	8,122,672	31,408,876
31.....	1,032,314	1,843,059	155,110	706,006	8,026,492	31,447,251
Apr. 7.....	.....	576,107	.....	310,088	7,562,885	30,162,017
14.....	1,404,210	1,637,104	1,146,211	630,010	7,714,000	31.640,982
21.....	.....	1,496,889	.....	241,503	7,531,433	30,764,897
28.....	1,723,352	1,680,743	1,455,337	1,774,767	7,668,723	30,848,532
May 5.	.....	2,169,197	.....	2,355,117	7,041,143	30,856,889
12.....	1,480,115	1,926,491	1,382,753	633,881	6,539,414	29,319,801
19.....	.....	2,223,578	.....	1,251,177	6,864,148	30,599,341
26.....	1,986,669	5,126,643	1,519,703	1,317,773	6,982,660	30,414,433
June 2.....	.....	2,325,972	.....	1,719,138	6,621,100	31,196,557
9.....	1,513,978	1,877,294	.....	1,542,466	6,620,622	30,406,203
15.....	.....	1,669,263	1,400,000	1,750,000	6,405,619	31,000,000
Total.....	15,220,560	31,523,188	16,201,812	17,638,614	.....	.....

The fall in the rate of money in London has been about the same as in New York; but the unusual spectacle presents itself here of a low rate of money running through two years without exciting any degree of speculation or promoting much business enterprise, beyond very firm prices for city property.

The arrivals of gold from California are not so large as last year, and there is far less activity at the Assay-office or the Mint. The operations at the former are as follows :—

NEW YORK ASSAY-OFFICE.

	Foreign.				United States.			Payments in	
	Gold.		Silver.			Silver.			
	Coin.	Bullion.	Coin.	Bullion.	Gold.	Coin.	Bullion.	Bars.	Coin.
Jan.	14,000	18,000	11,200	14,000	2,478,000	1,800	20,000	647,000	1.910,000
Feb.	5,000	28,000	6,500	24,000	951,000	....	7,500	932,000	90,000
Mar.	8,000	15,000	23,400	5,500	267,000	1,100	2,500	180,000	142,500
Apr.	8,000	32,000	14,500	10,000	183,000	3,700	3,800	187,000	70,000
May	11,200	20,800	25,500	18,000	176,000	7,000	16,500	230,000	45,000
Tot.	46,200	113,800	81,100	71,500	4,055,000	13,600	52,300	2,176,000	3,257,500
'59	31,000	46,000	225,080	42,000	1,875,000	9,900	21,620	1,884,000	685,600

Of the silver bullion deposited this month at the Mint, $11,000 was of Washoe silver, and the promise from those new mines continues to be large. The payments in coin are largely diminished since the beginning of the year. The Mint operations show the same feature for the last few months, as follows :—

UNITED STATES MINT, PHILADELPHIA.

	Deposits.		Coinage.			
	Gold.	Silver.	Gold.	Silver.	Cents.	Total
January.....	$200,000	$41,000	$1,024,563	$41,000	$24,000	$1,090,568
February.....	1,838,578	85,573	1,632,160	21,600	24,000	1,677,760
March	144,478	82,255	317,451	132,989	29,000	479,440
April.....	281,891	49,764	252,756	38,431	30,000	321,188
May.....	90,828	72,468	133,004	81,100	35,000	249,104
Total, 1860.	$2,575,775	$291,040	$3,259,934	$315,120	$142,000	$3,818,060
Total, 1859.	575,150	423,650	44,487	523,500	143,000	1,709,787

The comparative stagnation of business throughout the country not only causes money, or capital, to be in less demand, and therefore cheaper, but makes less currency necessary, and, as a consequence, there is an apparent plethora of coin. The law of 1853 provided for the coinage of the fractions of the dollar in silver at a rate of nearly seven per cent depreciation as compared with the silver dollars. This was done in the view of keeping the coin in circulation. The quantity that has been thus coined in the seven-and-a-half years since that act has been nearly $48,000,000. Of this some $3,300,000 has been of domestic silver—mostly from California gold. This supply of silver coin, in a form not profitable for exportation, exercises an important influence upon the amount of money outstanding. The banks do not like to take more than the legal tender—$5—and it passes from hand, being paid away and pushed off in the rapid manner natural to a cheap currency, which most persons had rather pay away than keep. A currency thus active performs more of the exchanges of trade than a sluggish one of the same nominal amount. It is partly to this circumstance that the small-note circulation of the banks bears so much less a proportion to their aggregate credits than formerly, and it also influences the export of the dollar pieces and of the small gold coins, since, when a currency becomes redundant, it is the most valuable coins which go first.

The last month has shown a considerable decline in the value of imports as compared with the same month last year, and the entries for warehouse bear a larger proportion to the whole imports than last year. There has been, however, an increase in the quantity of goods in warehouse. The importation of free goods is much less this year than last, when they were large by reason of the articles made free under the tariff of 1857 :—

FOREIGN IMPORTS AT NEW YORK IN MAY.

	1857.	1858.	1859.	1860.
Entered for consumption.....	$5,451,191	$6,574,612	$15,222,311	$10,515,411
Entered for warehousing	10,508,421	2,626,978	4,746,614	4,436,660
Free goods.....	1,674,810	1,928,573	3,461,285	1,845,020
Specie and bullion	1,070,833	324,540	122,436	96,060
Total entered at the port.....	$18,705,255	$11,454,703	$23,552,646	$16,893,151
Withdrawn from warehouse	2,262,178	2,665,575	1,628,434	2,475,067

The quantity of goods received since January 1, has been less than last year, and the amount entered for warehouse has been larger than for any similar period of the last four years, except 1857, although money has been so dear, and there has been an apparent accumulation of about four-and-a-half million dollars in bond :—

FOREIGN IMPORTS AT NEW YORK FOR FIVE MONTHS, FROM JANUARY 1ST.

	1857.	1858.	1859.	1860.
Entered for consumption.....	$62,766,051	$29,667,957	$76,920,748	$68,075,289
Entered for warehousing	29,574,660	9,827,520	13,772,131	16,427,793
Free goods.....	8,267,379	10,496,484	13,762,623	13,405,640
Specie and bullion.....	4,982,111	1,676,231	640,051	648,565
Total entered at the port.....	105,590,301	$51,668,192	105,095,053	$98,557,286
Withdrawn from warehouse	12,364,162	19,551,824	9,146,490	12,047,280

There has been about $5,000,000 less put upon the market this year than last. The operation for the eleven months shows an increase over any previous year :—

FOREIGN IMPORTS AT NEW YORK FOR ELEVEN MONTHS ENDING MAY 31.

	1857.	1858.	1859.	1860.
Six months	105,254,740	109,688,702	91,082,433	116,000,642
January	19,006,782	8,105,719	19,447,962	21,756,273
February	25,524,492	9,209,043	18,848,370	19,356,379
March.....	21,135,504	11,729,702	20,820,456	23,580,126
April.....	21,218,318	11,169,025	22,425,619	16,971,358
May.....	18,705,255	11,454,703	23,552,646	16,893,151
Total for eleven months.....	210,845,041	161,356,894	196,177,486	214,557,929

In separating the foreign dry goods from other merchandise, we find a large portion of the decline under that head. The total of foreign dry goods landed at the port, for the month of May, is larger than for any previous year, except 1859. The quantity entered for consumption direct this year is less than last year:—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR THE MONTH OF MAY.

ENTERED FOR CONSUMPTION.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	$303,300	$944,178	$2,939,269	$1,901,349
Manufactures of cotton.....	340,133	595,666	1,543,239	661,329
Manufactures of silk	308,962	786,112	1,821,294	1,422,900
Manufactures of flax	66,078	257,357	749,496	414,364
Miscellaneous dry goods.....	109,666	162,290	268,524	292,099
Total.....	$1,128,139	$2,745,603	$7,321,822	$4,692,041

WITHDRAWN FROM WAREHOUSE.

	1857.	1858.	1859.	1860.
Manufactures of wool	$151,078	$280,009	$101,962	$143,628
Manufactures of cotton.....	69,003	189,866	34,632	78,664
Manufactures of silk	115,549	175,305	17,880	98,051
Manufactures of flax.....	54,672	172,627	58,439	50,782
Miscellaneous dry goods.....	22,674	49,485	13,012	42,461
Total.....	$412,976	$867,292	$225,925	$413,586
Add entered for consumption	1,128,139	2,745,603	7,321,822	4,692,041
Total thrown upon market..	$1,541,115	$3,612,895	$7,547,747	$5,105,627

ENTERED FOR WAREHOUSING.

	1857.	1858.	1859.	1860.
Manufactures of wool....	$822,948	$185,342	$486,832	$417,481
Manufactures of cotton.....	289,336	81,839	76,862	188,273
Manufactures of silk.....	567,969	46,571	74,070	161,891
Manufactures of flax.....	129,235	70,904	77,897	43,152
Miscellaneous dry goods.....	190,752	41,556	66,924	78,393
Total.....	$2,000,240	$426,212	$782,587	$889,557
Add entered for consumption	1,128,139	2,745,603	7,321,822	4,692,041
Total entered at the port...	$3,128,379	$3,171,815	$8,104,409	$5,581,598

The quantity withdrawn from warehouse this year is less than half the quantity entered.

The receipts of foreign dry goods at the port of New York, since January

1st, exceed those of any preceding year for a corresponding period, except 1859, and about the same quantity imported has been put upon the market:—

IMPORTS OF FOREIGN DRY GOODS AT THE PORT OF NEW YORK, FOR FIVE MONTHS, FROM JANUARY 1st.

ENTERED FOR CONSUMPTION.

	1857.	1858.	1859.	1860.
Manufactures of wool	$7,311,527	$3,978,482	$13,881,282	$12,312,844
Manufactures of cotton	8,833,095	3,501,188	11,389,538	8,064,911
Manufactures of silk	11,246,964	5,706,309	18,324,975	14,917,196
Manufactures of flax	3,044,136	1,400,866	4,673,576	3,480,913
Miscellaneous dry goods	3,195,390	1,220,336	2,624,809	2,224,106
Total	$33,631,112	$15,807,181	$45,896,200	$40,949,970

WITHDRAWN FROM WAREHOUSE.

	1857.	1858.	1859.	1860.
Manufactures of wool	$982,071	$2,033,111	$761,545	$1,163,309
Manufactures of cotton	1,722,977	2,724,955	1,029,171	1,618,328
Manufactures of silk	1,171.994	2,253,144	397,803	810,926
Manufactures of flax	712,939	1,358,310	574,682	469,564
Miscellaneous dry goods	339,537	809,305	217,059	357,928
Total	$4,929,618	$9,178,825	$2,980,260	$4,420,050
Add entered for consumption	33,631,112	15,807,181	45,896,200	40,949,970
Total thrown on market	$38,560,730	$24,986,006	$48,876,460	$45,370,020

ENTERED FOR WAREHOUSING.

	1857.	1858.	1859.	1860.
Manufactures of wool	$2,769,628	$948,997	$944,437	$1,501,961
Manufactures of cotton	1,622,990	1,337,346	605,611	1,273,283
Manufactures of silk	2,374,429	812,188	277,129	817,388
Manufactures of flax	1,135,082	505,410	291,278	208,582
Miscellaneous dry goods	549,345	358,519	185,167	369,848
Total	$8,451,474	$3,962,460	$2,403,656	$4,170,462
Add entered for consumption	33,631,112	15,807,181	45,896,200	40,949,970
Total entered at the port	$42,082,586	$19,769,641	$47,799,856	$45,120,432

The exports of domestic produce from New York to foreign ports have been rather more than for last year. On the other hand, the shipments of specie, which were remarkably large, have declined more than half. The shipments of specie for May last year were larger than for any previous month in our history; and this year, although less, are still considerable:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE MONTH OF MAY.

	1857.	1858.	1859.	1860.
Domestic produce	$6,046,643	$4,262,789	$5,180,652	$5,182,190
Foreign merchandise (free)	169,451	113,799	308,096	309,921
Foreign merchandise (dutiable)	294,839	229,990	426,002	248,270
Specie and bullion	5,789,266	1,790,275	11,421,032	5,529,936
Total exports	$12,300,199	$6,397,353	$17,335,782	$11,900,317
Total, exclusive of specie	6,510,933	4,606,578	5,914,750	6,370,381

Thus the exports from New York to foreign ports, exclusive of specie, since January 1st, are larger than ever before in the same period. The specie shipments for the same time show an immense decline as compared with last year, and are moderate in respect of former ones :—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR FIVE MONTHS, FROM JANUARY 1.

	1857.	1858.	1859.	1860.
Domestic produce	$29,056,328	$22,197,453	$23,555,187	$30,448,088
Foreign merchandise (free)	1,176,049	623,792	1,258,063	1,519,011
Foreign merchandise (dutiable)	1,789,548	1,929,425	1,601,841	2,606,281
Specie and bullion	14,458,708	11,765,785	25,700,991	12,737,672
Total exports	$46,480,633	$36,516,465	$52,116,081	$47,311,052
Total, exclusive of specie	32,021,925	24,750,680	26,415,091	34,573,380

This shows an aggregate far in excess of any previous year, including specie, of which the movement has been very large. Exclusive of specie, the shipments have not been exceeded any year except 1857, when the high prices of cotton during the first months swelled the amount. There is now some improvement in the exports of breadstuffs :—

EXPORTS, EXCLUSIVE OF SPECIE, FROM NEW YORK TO FOREIGN PORTS FOR ELEVEN MONTHS ENDING WITH MAY.

	1857.	1858.	1859.	1860.
Six months	$43,596,501	$34,702,441	$27,994,834	$36,371,058
January	4,884,170	4,689,739	4,114,008	6,022,462
February	5,938,786	4,173,577	3,735,633	6,675,870
March	9,015,891	5,180,860	5,876,001	8,128,764
April	5,672,145	6,099,926	6,774,699	7,375,913
May	6,510,933	4,606,578	5,914,750	6,370,381
Total	$75,618,426	$59,453,121	$54,409,925	$70,944,438
Specie for same time	36,409,114	33,727,897	39,342,463	49,265,566
Total exports	112,027,540	$93,181,108	$93,752,388	120,200,004

The cash duties received at the port were, for the first six months of the fiscal year, higher than last year or the previous one, and are second only to the large revenues of 1857 :—

CASH DUTIES RECEIVED AT NEW YORK.

	1858.	1859.	1860.
Six months ending January 1.	$16,345,553 57	$15,387,618 49	$19,322,060 96
In January	1,641,474 59	3,478,471 38	3,899,166 17
February	2,063,784 86	3,328,688 93	3,378,043 28
March	2,213,452 15	3,164,011 25	3,477,545 74
April	1,736,510 41	3,212,060 49	2,444,267 96
May	1,748,227 54	3,014,520 39	2,466,462 76
Total eleven months	$25,749,003 12	$31,585,370 93	$34,987,546 87

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

CITY OF NEW YORK FINANCES.

The report of the Controller of the city gives the following items:—

Amount in the bureau of collection of taxes, December 31, 1858..		$2,719,966 87
The amount of the general tax levy for 1859, according to the apparent footings of the tax books, extended and added under direction of the members of the Board of Supervisors, and placed in the hands of the Receiver of taxes, was.....		9,863,002 24
Amount of interest on taxes collected during the year.....		50,406 53
		$12,633,375 64
The amount of remissions and abatements during the year was	$108,058 96	
Amount refunded for payments in error.....	2,952 77	
Amount of discount on taxes.....	37,620 51	
Amount of taxes on real estate for the year 1858 transmitted by the Clerk of Arrears for collection.....	668,960 73	
Amount paid over to the county treasurer during the year	8,858,494 35	
		$9,676,087 32
Amount remaining uncollected December 31, 1859, as per account by the Receiver of taxes		2,957,288 32

It was estimated at the beginning of the year 1859, that of the large amount of personal taxes then due, not more than $300,000 would ever be realized, and the results of the year show that said estimate was not far from correct; the amount of such taxes at the above mentioned date was $1,744,649 28; and there was remaining on December 31, 1859, as stated above $1,502,996 87; amount settled in 1859 $241,652 39.

The following is a statement of the amount of taxes uncollected December 31, 1858, the amount of the general tax levy for 1859, and the portions of said taxes belonging to the city and county respectively:—

	Total amount.	Amount belonging to the city.	Amount belonging to the county.
Taxes uncollected Dec. 31, 1858...	$3,874,137 22	$3,819,137 22	$25,000 00
General tax levy for 1859.....	9,860,926 09	6,546,034 11	3,314,891 98
	$13,735,063 31	$10,395,171 33	$3,339,891 98

The collections made during the year 1859 by the Receiver of Taxes, and interest thereon, and the respective proportions of such collections belonging to the city and county, were as follows:—

	Total amount.	Amount belonging to the city.	Amount belonging to the county.
Taxes of the year 1858, & prev. years	$2,441,539 49	$416,539 49	$25,000 00
Taxes of the year 1859	8,366,548 33	5,554,012 91	2,812,535 42
Interest on taxes.....	50,406 53	48,071 50	2,335 03
	$8,858,949 35	$6,018,623 90	$2,839,870 45

The proportion of the collections made by the Receiver of Taxes belonging to the city as above stated is as follows:—

On account of interest on taxes	$48,071 50
On account of taxes	5,970,552 40
	$6,018,623 90

The amount transferred from the county treasury to the city treasury on account of the above collections, was—

On account of taxes	$5,468,195 84	
On account of interest on taxes	48,071 50	
		$5,516,267 34
Balance due to the city, December 31, 1859		502,356 56

VALUATION OF PROPERTY AS ASSESSED FOR TAXES.

The returns of the Commissioners of Taxes and Assessments for the year 1859, show a continual increase in the valuation of property within the county subject to and assessed for taxes. The following table completed from the annual reports of the Controller, exhibits the amount of such valuation for the last twenty-one years:—

Years.	Real estate.	Personal estate.	Total.
1839	$195,940,134	$69,942,297	$266,882,431
1840	187,221,714	65,013,802	252,235,516
1841	156,850,948	94,843,972	251,194,920
1842	176,513,092	61,292,559	237,805,151
1843	164,955,315	64,273,765	229,229,081
1844	171,937,579	64,789,552	236,727,143
1845	177,207,990	62,787,528	239,995,518
1846	183,480,534	61,471,971	244,952,005
1847	187,315,886	59,837,917	247,153,303
1848	193,029,076	61,164,451	254,193,527
1849	197,741,019	58,455,224	256,197,143
1850	207,146,176	78,939,240	286,085,416
1851	227,015,856	93,095,002	320,110,859
1852	253,278,384	98,400,042	351,768,426
1853	294,652,795	119,034,138	413,686,933
1854	330,564,452	131,721,338	462,285,790
1855	336,975,896	150,022,412	486,998,278
1856	340,972,098	170,744,394	511,740,492
1857	352,348,033	168,216,449	520,559,482
1858	368,346,291	162,847,994	531,194,290
1859	379,110,580	172,971,192	552,081,722

According to the first annual report of the State assessors, just published, the aggregate valuations of real and personal property of the whole State, as assessed for taxes for several years, is as follows:—

1845	$606,646,095	1857	$1,483,309,713
1850	727,494,583	1859	1,416,290,837
1854	1,364,154,625		

WAR STATISTICS.

M. Kolb, a North German professor of statistics, tells us that the recent war in Italy cost Austria, France, Sardinia, and Germany 450,000,000 of Prussian dollars, (about 1,700,000,000 f.) Austria expended 166,000,000 of dollars, France about 190,000,000, Sardinia 48,000,000, and Prussia, Bavaria, Wurtemberg, Baden, Darmstadt, etc., 50,000,000.

CITY WEEKLY BANK RETURNS.

NEW YORK BANK RETURNS.—(CAPITAL, JAN., 1860, $69,333,632; 1859, $68,050,755.)

	Loans.	Specie.	Circulation.	Deposits.	Average clearings.	Actual deposits.
Jan. 7	124,597,663	17,863,734	8,539,063	97,493,709	22,684,854	74,808,855
14	123,582,414	18,740,866	8,090,548	99,247,743	23,363,980	75,883,763
21	123,845,931	19,233,494	7,880,865	99,644,128	22,813,547	76,830,581
28	123,088,626	20,063,739	7,760,761	98,520,793	21,640,967	76,879,826
Feb. 4	124,091,982	19,924,301	8,174,450	99,476,430	21,898,736	77,577,694
11	123,336,629	19,787,567	8,185,109	98,146,463	21,674,908	76,471,055
18	124,206,031	20,591,189	8,050,001	100,387,051	22,061,811	78,325,240
25	124,398,239	20,773,896	7,928,595	100,622,481	22,151,504	78,470,977
Mar. 3	125,012,700	23,086,812	8,165,026	103,663,462	22,787,290	80,876,172
10	127,302,778	21,861,180	8,419,633	104,813,906	23,791,958	81,021,948
17	127,562,848	23,171,833	8,380,999	108,560,981	25,562,858	82,998,123
24	127,613,507	23,286,204	8,335,266	107,505,395	25,397,976	82,107,419
31	128,388,223	23,420,759	8,444,827	106,311,554	22,889,523	83,422,031
Apr. 7	130,606,731	22,599,132	8,929,228	109,193,464	25,656,629	83,536,835
14	129,919,015	23,626,982	8,775,297	109,153,863	24,256,270	84,897,593
21	128,448,868	23,233,314	8,790,459	108,145,233	25,758,735	82,386,498
28	127,085,667	23,279,809	8,749,048	103,206,723	21,891,290	81,315,433
May 5	127,479,520	23,815,746	9,391,861	108,505,388	26,546,063	81,959,325
12	126,184,532	22,780,387	9,153,811	108,038,848	27,802,174	80,236,674
19	124,938,389	23,735,193	9,035,522	106,229,724	25,339,444	80,890,280
26	125,110,700	23,431,773	8,826,473	104,433,136	24,309,496	80,123,640
June 2	124,792,271	24,535,457	8,774,063	104,268,785	22,888,107	81,380,678
9	125,431,963	23,785,581	8,999,948	103,886,091	22,776,108	80,609,983

BOSTON BANKS.—(CAPITAL, JAN., 1859. $35,125,433; 1860, $36,581,700.)

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 2 ..	59,807,566	4,674,271	6,479,483	18,449,305	7,545,222	6,848,374
16 ..	60,068,941	4,478,841	6,770,624	17,753,002	7,867,400	6,735,283
23 ..	59,917,170	4,182,114	6,486,139	17,378,070	7,784,169	6,516,532
30 ..	59,491,887	4,172,325	6,199,485	17,483,054	7,383,370	6,517,541
Feb. 6 ..	50,705,422	4,249,594	6,307,922	17,900,002	7,259,703	6,656,460
13 ..	59,993,784	4,462,698	6,364,320	17,271,596	7,426,589	6,593,702
20 ..	60,113,836	4,577,334	6,305,587	17,597,881	7,430 060	6,549,382
27 ..	59,927,917	4,714,034	6,411,573	18,020,239	7,700,530	7,480,954
March 5 ..	59,993,784	5,034,737	6,396,656	18,645,621	7,736,290	7,768,074
12 ..	59,885,196	5,328,610	6,430,643	18,393,293	7,715,668	7,390,935
19 ..	60,258,208	5,446,840	6,405,084	18,660,205	.....	.....
26 ..	60,180,209	5,627,961	6,328,273	18,742,817	8,351,016	7,804,222
Apr. 2 ..	60,050,953	6,045,703	6,340,268	19,262,894	8,473,775	8,080,218
9 ..	60,668,559	6,320,551	7,753,491	20.469,893	9,206,161	9,788,121
16 ..	61,189,629	6,289,719	7,267,165	20,291,620	9,160,868	8,314,312
23 ..	61,035,965	6,315,952	7,152,766	20,266,917	9,055,077	8,138,121
30 ..	61,259,552	6,317,949	6,992,903	20,195,951	9,273,558	7,948,086
May 7 ..	61,614,199	6,311,714	7,322,813	20,810,086	9,116,514	8,324,891
14 ..	61,744,290	6,263,535	7,076,071	20,758,862	9,210,132	8,209,699
21 ..	61,724,621	6,268,919	7,031,306	20,726,996	9,197,894	8,241,899
28 ..	61,258,986	6,201,113	6,660,595	20,320,518	9,057,822	8,272,557
June 4 ..	61,585,669	6,192,455	6,800,711	20,656,295	9,172,878	8,366,511

PHILADELPHIA BANKS.—(CAPITAL, JAN., 1860, $11,687,485.)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 2....	25,386,387	4,450,261	2,856,601	14,982,919	2,619,192
9....	25,248,051	4,453,252	2,675,623	14,161,487	2,596,212
16....	25,275,219	4,561,998	2,672,730	14,934,517	2,563,449
23....	25,445,737	4,514,579	2,644,191	15,064,970	2,601,271
30....	25,526,198	4,535,321	2,601,750	15,401,915	2,619,573
Feb. 6....	25,493,975	4,669,929	2,656,310	15,409,241	2,574,015
13....	25,493,975	4,669,929	2,656,310	15,409,241	2,574,015
20....	25,458,354	4,581,356	2,663,695	14,864,302	2,782,306

	Loans.	Specie.	Circulation.	Deposits.	Due banks.
27....	25,553,918	4,706,108	2,653,192	14,590,092	3,115,010
Mar. 5....	25,742,447	4,816,052	2,697,108	15,192,971	3,133,312
12....	25,742,447	4,816,052	2,697,108	15,192,971	3,133,312
19....	25,882,077	4,873,419	2,783,345	15,205,432	3,209,553
26....	26,043,772	4,992,542	2,784,773	15,693,622	3,198,530
April 2....	26,405,229	5,060,274	2,858,812	15,553,269	3,652,757
9....	27,214,254	5,209,576	3,528,762	15,528,762	4,085,695
16....	27,444,580	5,415,711	3,252,186	16,012,140	4,164,678
23....	27,545,351	5,464,280	3,154,285	16,613,616	3,985,110
30....	27,571,002	5,453,470	3,037,846	16,529,891	3,902,514
May 7....	27,590,212	5,477,019	2,968,444	16,763,609	3,731,987
14....	27,463,831	5,537,360	2,944,245	16,489,872	4,209,845
21....	27,401,926	5,367,416	2,870,617	16,422,835	4,085,882
28....	27,288,932	4,886,579	2,818,719	15,884,903	3,974,369
June 4....	27,171,002	4,582,610	2,824,471	15,620,293	3,744,431

NEW ORLEANS BANKS.—(CAPITAL, JAN., 1860, $18,917,600.)

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
Jan. 7 ..	25,022,456	12,234,448	12,038,494	18,563,804	7,323,530	1,557,174
14 ..	24,928,909	12,336,735	12,417,847	18,678,233	7,410,360	1,387,704
21 ..	24,699,024	12,821,411	12,809,512	18,664,855	7,423,629	1,377,796
28 ..	24,916,431	12,818,159	12,882,184	19,677,121	8,144,681	1,603,763
Feb. 4 ..	25,145,274	12,750,642	13,215,494	19,565,305	8,003,380	1,613,036
11 ..	25,197,351	12,741,881	13,243,924	19,244,847	7,349,365	1,396,150
18 ..	25,005,952	12,894,521	13,458,989	19,903,519	7,886,609	1,470,787
25 ..	24,897,286	12,945,204	13,600,419	19,218,590	8,083,929	1,635,526
Mar. 3 ..	24,946,210	12,952,002	13,860,399	20,116,272	8,027,049	1,092,475
10 ..	24,088,800	13,039,092	13,726,554	19,711,423	8,582,012	1,601,149
17 ..	24,054,845	12,729,356	13,797,154	19,304,618	8,498,790	1,718,310
24 ..	23,832,766	12,610,790	13,835,755	19,102,068	8,342,599	1,738,246
31 ..	23,674,714	12,437,195	13,975,624	18,681,020	8,149,061	1,610,499
Apr. 7 ..	23,107,740	12,368,071	14,100,890	18,070,209	8,560,117	1,942,056
14 ..	22,422,208	12,290,539	13,638,089	17,849,018	8,179,441	1,608,463
21 ..	22,380,033	12,100,687	12,999,204	18,380,033	7,649,069	1,649,060
28 ..	21,437,974	11,910,361	12,783,749	17,699,538	7,686,634	1,877,017
May 5 ..	21,437,974	11,910,361	12,783,749	17,699,538	7,686,634	1,877,017
12 ..	20,545,529	11,672,364	12,258,444	17,442,974	7,213,833	1,763,871
19 ..	19,385,119	11,706,007	12,163,609	17,260,226	6,909,386	1,680,480
26 ..	18,588,492	11,593,719	11,900,864	17,938,774	6,599,676	1,596,210

PITTSBURG BANKS.—(CAPITAL, $4,160,200.)

	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 16.....	7,202,367	980,530	2,080,548	1,527,548	304,562
23.....	7,060,471	1,022,273	2,012,478	1,545,103	255,076
30.....	6,989,320	1,003,037	1,896,863	1,555,686	265,804
Feb. 6.....	6,984,209	997,589	1,907,323	1,609,692	230,426
13.....	6,939,052	951,638	1,883,093	1,602,311	191,222
20.....	6,957,621	988,306	1,868,598	1,643,703	175,051
27.....	7,022,230	991,877	1,821,283	1,760,957	224,434
Mar. 5.....	7,101,459	1,018,255	1,871,873	1,768,879	273,343
12.....	7,035,624	999,093	1,901,543	1,651,216	197,007
19.....	7,066,774	1,004,750	1,945,328	1,636,887	198,556
26.....	7,088,891	981,560	1,980,732	1,572,130	192,411
Apr. 2.....	7,166,377	1,005,415	2,085,583	1,601,167	191,101
9.....	7,206,737	990,962	2,072,373	1,693,230	171,100
16.....	7,159,568	1,018,445	2,071,878	1,651,362	187,255
23.....	7,278,279	1,156,278	2,024,138	1,897,498	240,143
30.....	7,284,761	1,141,373	1,995,053	1,913,537	175,671
May 5.....	7,284,761	1,141,373	1,995,053	1,913,537	175,671
14.....	7,263,197	1,088,851	2,011,258	1,890,810	215,765
19.....	7,196,493	1,133,719	2,022,988	1,906,773	218,944
27.....	7,190,192	1,122,057	1,952,683	1,918,321	206,316
June 4.....	7,282,963	1,089,751	1,907,248	1,919,903	277,978

ST. LOUIS BANKS.

	Exchange.	Circulation.	Specie.
Jan. 7	4,373,543	538,555	662,755
14	4,467,513	520,305	642,497
21	4,352,699	502,175	580,764
28	4,290,563	495,380	568,335
Feb. 4	4,149,236	457,095	590,502
11	4,048,593	424,605	625,043
18	3,906,896	391,605	639,450
25	3,951,433	399,085	680,877
March 3	3,891,263	395,905	689,301
10	3,998,827	377,935	651,302
17	3,963,924	377,355	641,252
24	3,880,915	356,245	664,179
31	3,790,291	340,095	685,984
April 7	3,862,454	344,630	657,321
14	3,868,345	325,950	676,858
21	3,852,614	314,360	601,014
28	3,694,877	306,750	678,234
May 5	3,609,648	301,300	746,176
12	3,683,644	294,115	808,918
19	3,695,707	285,140	826,798
26	3,767,986	273,540	671,669
June 2	3,879,617	255,210	627,942

PROVIDENCE BANKS.—(CAPITAL, $14,903,000.)

	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 2	19,144,354	315,917	2,011,336	2,635,486	938,508
Feb. 6	19,144,846	326,297	1,958,540	2,566,168	921,779
Mar. 3	19,009,255	342,965	1,917,593	2,598,169	970,971
Apr. 1	18,686,210	343,992	1,952,022	2,640,170	1,040,260
May 7	18,893,653	448,413	2,045,590	2,778,248	1,356,071
June 4	18,891,907	422,726	1,938,254	2,844,012	.....

FOURTH ANNUAL REPORT OF THE BOSTON CLEARING-HOUSE ASSOCIATION.

The committee herewith submit the Fourth Annual Report of the Boston Clearing-house Association, ending March 31, 1860.

Our financial affairs for the past year have not been signalized by any marked or striking event of sufficient importance to be commented upon. For the most part of the time, money has been in good supply, and the resources of the banks have been fully adequate to meet the demands of the business public, who, we have every reason to believe, have experienced little if any difficulty in obtaining discounts on all good mercantile paper. The loans have been large, averaging, for the year, more than $58,000,000; and, so far as we have the means of judging, we should say that the banks have not suffered any material loss in this branch of their business. If, however, short paper alone was discounted, we feel assured that it would add much to the security of our banks, and be most beneficial in shortening mercantile credits, increasing stability in business affairs, and checking the expansions and sharp contractions which so often occur, and which naturally tend to destroy confidence and produce panic.

The highest amount of specie held by the associated banks, as reported to the clearing-house, for the year past, was on the 28th day of May last—being at that time $7,103,300, or 25 88-400 per cent on their legal liabilities. The lowest point reached during the year, was on the 25th day of January last—being $4,060,700, or 17 per cent on their legal liabilities, showing a loss, between these dates, of $3,042,600.

In this connection, your committee would take the liberty to suggest, that the percentage of coin required by law to be held by the banks is a healthy and judicious one, and a strict adherence to the spirit of the statute on this subject, by *all* the banks, would tend to maintain a greater uniformity in the monetary affairs of this city.

Boston is the financial center and redeeming point of all the New England banks; and, whenever the money market becomes unsettled, the circulation of these banks—which is usually large, and easily disturbed—at once begins to flow back to the city with great rapidity. Hence it is important that the Boston banks should keep in their vaults a specie reserve adequate to meet any sudden and temporary derangement in monetary affairs, without causing inconvenience to our business public.

Two new banks have been admitted to the clearing-house since the last annual meeting of the association—both organized under the general banking law of this State, namely, the Revere and the Bank of the Republic, with an aggregate capital of $1,650,000.

The increase of capital of the chartered banks since the 1st of April, A. D. 1859, has been $1,410,000. Of this amount, however, $610,000 has been added under the general banking laws, and $800,000 under special charters. The increase of capital to banks, during the same time, doing business under the general banking law, has been $400,000, making a total increase of capital to banks belonging to the clearing-house association, for the past year, of $3,460,000.

		Clearings.	Balances.
The exchanges for the year ending March 31,	1860, were	1,454,813,000	127,197,000
" " " "	1859, "	1,262,700,000	111,823,000

The amount of certificates issued by the Merchants' Bank to April 1, 1860, was $14,590,500; amount canceled, $11,750,500; outstanding with the banks, $2,840,000.

REVENUE FROM CUSTOMS IN UPPER AND LOWER CANADA.

The following table will show the amount derived from customs duties in Upper and Lower Canada:—

RECEIPTS OF CUSTOM DUTIES SINCE THE UNION.

	Lower Canada.	Upper Canada.		Lower Canada.	Upper Canada.
1841..	£194,661 1 4	£31,173 6 6	1851..	480,040 15 6	257,398 4 8
1842..	245,385 17 9	33,544 9 7	1852..	446,803 6 3	392,460 6 6
1843..	184,447 1 6	57,125 7 6	1853..	590,903 2 5	437,773 13 2
1844..	345,954 19 4	95,376 5 10	1854..	676,336 9 2	548,415 15 6
1845..	349,214 6 10	100,745 14 10	1855..	398,088 7 0	483,357 5 5
1846..	310,082 5 5	112,132 13 3	1856..	574,735 12 5	552,484 18 0
1847..	297,293 5 10	117,339 19 8	1857..	563,081 1 11	418,181 14 0
1848..	232,064 6 6	101,965 2 3	1858..	521,600 12 6	323,746 15 0
1849..	289,621 7 9	154,935 17 4			
1850..	394,424 7 11	221,270 5 9		7,094,739 5 4	4,439,416 14 9

From the foregoing it will be seen that the difference of duties received last year in Upper and in Lower Canada, was £200,000 received more in Lower than in Upper Canada, and to equalize the duties it would be necessary that at least goods to the value of £2,000,000 currency should be obtained from Lower Canada importers by the Upper Canada consumer or trader to equalize the duties of customs.

MINNESOTA STATE FINANCES.

Receipts into the treasury from all sources, from Jan. 1st, 1858, to Feb. 1st, 1859, at which time settlement was made with State Treasurer	$470,499 43
Disbursements during the same period	466,435 87
Balance in treasury, Feb. 1st, 1859	$4,063 56
Receipts into the treasury from all sources, (including previous balance) from Feb. 1st, 1859, to Dec. 1st, 1859	$96,392 05
Disbursements	81,055 89
Balance in treasury, Dec. 1st, 1859	$15,339 16
Aggregate amount of receipts	562,827 92
Disbursements from Jan. 1st, 1858, to Dec. 1st, 1859	547,488 76
Balance	$15,339 16
Total amount of floating State indebtedness	$35,270 65
The unexpended balance of the several appropriations amount to	58,689 40
The total amount of taxable property of the State for the year 1858, as far as returned to this department, is	41,846,778 09
The State tax on the same, at the rate of five mills on the dollar, is	209,233 89

A large portion of the newly organized counties have failed to make returns, although demand for the same has been made from this department upon every organized county in the State.

Only a portion of the returns of the taxable property of the State for the year 1859, have been received. From those already received, I estimate the amount at $40,000,000, and the State tax at $200,000, which will become due in February next.

The total amount of delinquent taxes, due from the counties, December 1st, 1859, is $149,790 67.

The amount of taxable property for the year 1860 is estimated at $40,000,000; a tax upon this amount of 2½ mills on the dollar amount to $10,000, which, with the large amount of delinquent taxes already due, it is hoped will be amply sufficient for the support of the State government without embarrassment.

CINCINNATI PERSONAL PROPERTY.

We give below the personal property in the several wards, embraced in the merchants' and manufacturers' stock, and moneys, from which some opinion of the business interests of the city may be determined:—

Ward.	Merchants' stock.	Manufac'rs' stock.	Moneys.	Wards.	Merchants' stock.	Manufac'rs' stock.	Moneys.
1st..	$744,331	$440,192	$185,260	11th..	45,051	53,969	95,364
2d..	2,089,638	771,560	221,848	12th..	155,077	350,080	82,151
3d..	1,373,681	586,688	343,686	13th..	591,881	586,945	147,483
4th..	3,795,460	948,195	405,085	14th..	280,203	159,880	99,883
5th..	443,780	145,331	207,613	15th..	111,984	22,630	159,501
6th..	170,213	86,255	44,707	16th..	96,472	118,278	50,087
7th..	110,261	67,098	90,095	17th..	7,051	20,157	26,626
8th..	108,691	57,817	81,497				
9th..	92,530	56,613	81,696		$10,432,422	$4,545,951	$2,354,879
10th..	216,118	80,263	81,837				

SAVINGS BANKS OF NEW YORK.

The following report shows the gratifying fact that over $58,000,000 have been saved by the people of New York, being an average cash deposit of over $208. The following is the summary showing the aggregate of the resources and liabilities of the savings institutions of the State of New York, as exhibited by their reports to the Superintendent of the Banking Department of the State of New York, J. M. Cook, Esq., of their condition on the morning of the first day of January, 1860:—

RESOURCES.

Bonds and mortgages		$22,844,594
Estimated value of mortgaged premises	$55,872,318	
Stock investments, amount invested		29,597,774
Par value of stocks	29,703,128	
Estimated value of same	28,932,740	
Stocks upon which money has been loaned, par value	1,762,581	
Amount loaned thereon		1,233,904
Amount loaned upon personal securities		55,237
Amount invested in real estate		1,101,791
Cash on deposit in banks		4,845,890
Cash on hand, not deposited in banks		919,961
Amount loaned or deposited, not included in above heads		120,945
Miscellaneous resources		33,212
Add for cents		88
		$60,753,396

LIABILITIES.

Amount due depositors	$58,178,160
Miscellaneous liabilities	23,097
Excess of assets over liabilities	2,552,085
Add for cents	54
	$60,753,396

Number of institutions, 64; number of open accounts, 273,697.

Average to each depositor	$202 91
Total amount deposited during calendar year, 1859	30,808,383
Total amount withdrawn during calendar year, 1859	23,308,109
Total amount received for interest during calendar year, 1859	3,049,924
Total amount of interest placed to credit of depositors, during calendar year, 1859	2,610,912

VALUATION OF TORONTO.

The following is the annual (assessed) value of real and personal property in the city of Toronto, since 1851 :—

1851	747,933	1856	1,711,934
1852	793,512	1857	2,060,344
1853	909,964	1858	2,012,986
1854	1,163,831	1859	1,830,483
1855	1,387,470	1860	1,690,518

From the above it will be seen that a steady increase took place in the annual value of city property from 1851 to 1857, in which latter year it attained its highest point. In 1858, after the terrible panic of the fall of 1857, a reduction of $47,000 only took place, and this has been continued.

THE COINS OF JAPAN.

The following results of an authorized assay, in England, of Japanese coins will probably be of interest at the present time, considering the intercourse which has recently been opened with that country :—

	No.	Weights in decimals of an oz. Troy.	Proportion in 10,000 parts. Of gold.	Of silver.	Of base alloy.
Copanga.....	1	.3621	5,680	4,310	10
"	2	.3626	5,670	4,320	10
"	3	.3658	5,668	4,325	7
Half copangs.....	4	.1826	1,910	8,046	44
"	5	.1820	1,986	7,980	34
Eighth copangs.....	6	.0532	2,949	7,016	35
"	7	.0535	2,970	7,016	14
"	8	.0537	2,981	7,010	9
"	9	.0534	2,969	7,005	26
"	10	.0530	2,922	7,034	44
"	11	.0534	2,982	7,010	8
"	12	.0535	3,026	6,970	4
"	13	.0530	3,142	6,854	4

The values of the metals in each coin are, on an average, as follows :—

	Copanga. s. d.		Half Copangs. s. d.		Eighth Copang. s. d.	
Gold.....	17 6	225 st'g	3 0	228 st'g	1 4	307 st'g
Silver.....	.. 10	181 "	0 9	575 "	0 2	424 "
Intrinsic value	18 4	406 "	3 9	803 "	1 6	731 "

—calculated at the English mint price of gold, *i. e.*, £3 17*s.* 10½*d.* per ounce, and of silver 3*s.* do.

ENGLISH CUSTOMS AND DUTIES.

Subjoined is a statement of the gross amount produced by customs duties upon the principal articles of foreign and colonial merchandise during the past year, compared with the three preceding years. Seventy per cent of the whole is furnished by sugar, tobacco, and tea :—

	1856.	1857.	1858.	1859.
Sugar.....	£5,655,626	£5,370,725	£6,223,436	£5,891,192
Tobacco.....	5,299,626	5,253,431	5,454,216	5,278,463
Tea	5,538,242	5,060,082	5,186,171	5,408,924
Spirits.....	2,560,556	2,366,494	2,246,467	2,462,112
Wine	2,073,735	1,965,361	1,827,087	1,882,302
Other articles.....	3,169,059	2,940,328	3,218,475	5,747,073
Total.....	£24,206,844	£22,956,371	£24,155,852	£25,065,066

CASH SALES IN CUBA AND TWO PER CENT DISCOUNT.

The Cuba *Messenger*, published at Havana, remarks :—Since the early part of 1857, when the Grocer's Bank was established in this city, the *rule* of discounting 2 per cent on all cash sales of provisions, &c., made on our wharves, was also established. The wholesale grocers combined and agreed not to purchase any goods unless the 2 per cent discount was allowed, and ever since it has been like a law in our market. As we know that many merchants abroad, and especially those who do not make regular shipments to this port, have made inquiries in regard to this item, we think it proper and convenient to explain the matter as we now do; and we will continue, from time to time, to explain all other points which may interest or concern those who may trade or be interested in the commercial affairs of this island.

ASSAY OF THE COINS OF JAPAN.

A number of Japan coins having been submitted to Col. JAMES ROSS SNOWDEN, the director, an assay has been made with results as follows:—

The coins are of gold, silver, brass, copper, and iron.

The principal gold coin is the *cobang*, of which we have three sizes, according to the changes which have been made within the past sixty years. This coin is of oval shape, very thin, soft, and easily bent; it is largely alloyed with silver, but the silver being taken out of the surface by a solvent, the coin looks like fine gold, until it has been a good deal worn. This accounts for the very pale color of the first specimen; and of another, in which we have scratched off part of the surface, to show the true color.

No. 1, is a cobang, supposed to be about sixty years old. It weighs 201½ grains; it is two-thirds gold; one-third silver; or, as we express by thousandths, is 667-thousandths fine. In its value, including the silver, is $5 95. It is of oval form, quite thick, 2½ inches long, and 1½ broad.

No. 2, cobang, coined within a few years past, weighs 174 grains. It is four-sevenths gold, and three-sevenths silver, very nearly; the exact fineness in thousandths being 568. The value including the silver, is $4 44. In size it is very little smaller than No. 1.

Nos. 3 and 4, cobangs, of very recent date brought by the embassy for assay. They are exactly alike, except one small mark. The weight is 138½ grains. Their fineness is about 571-thousandths, which is precisely four-sevenths, and appears to be the definite legal standard. The value, including the silver, is $3 57; without the silver, $3 41. These are yet smaller than No. 2, but similarly shaped.

Nos. 5 and 6, two small rectangular coins, with a gold surface, which (by specific gravity) are about one-third gold. The weight is 25½ grains. Their name and place in the series are not known to us. They are two-thirds of an inch in length, and one-third in breadth.

No. 7, rectangular coin, is half the weight of the cobang, No. 2; but (by specific gravity) contains little more than one-fourth gold; the remainder appears to be silver. This piece, also, is not understood. It is one inch long and one-half an inch broad.

No. 8, also rectangular, is called the gold itzebu, is one-fourth the weight of cobang, No. 2, and of the same fineness, very nearly. Value $1 11. A little smaller than No. 7.

Nos. 9 and 10 are the new gold itzebu, brought by the Embassy for assay, and are one-fourth of the cobang brought by them. Value 89½ cents. A little larger than Nos. 5 and 6. All the silver coins are rectangular, and rather thick.

No. 11, and old half-itzebu, silver, is one of several pieces which were given to an officer of the United States Exploring Expedition, about the year 1840, by some Japanese sailors who had drifted far out into the Pacific Ocean, and were picked up and taken care of. Afterward, by the wreck of one of our vessels, all the coins were lost except this one. It was our first specimen of Japanese coin. The weight is 41 grains, and, being near fine silver, it is worth a little over 11 cents. Same size as No. 8.

No. 12 is a silver itzebu, coined some years since, weighing 134½ grains 988 to 990 thousandths fine, and worth 36.9 cents. (Some specimens are fully 37.) A little larger than No. 7.

No. 13 weighs 28½ grains, and appears also to be nearly fine; value about 8 cents. Name not known. Same size as No. 8.

No. 14, a new silver itzebu, brought by the Embassy, (cut for assay.) It weighs the same as the old itzebu, 134½ grains, but is 890 thousandths fine, which is near our standard, (900.) Valued at 33.28 cents. Same size as No. 12.

No. 15, a large, thick piece of brass, oval, cast with a square hole in the center; said to be a piece of "one hundred p'senny." It is 2 inches long and 1½ broad.

No. 16, a copper coin, circular, with a hole in the center, size of our cent.

No. 17, an iron coin, circular, with rough edges, and with a hole in the center, size of half cent.

STATISTICS OF TRADE AND COMMERCE.

WHALE TRADE OF THE NORTH PACIFIC.

The Sandwich Island papers state:—We are able to make up for this mail a full exhibit of the North Pacific whaling fleet. As a rule, we give the highest reliable figures, for generally ships hail below their actual catch. The list embraces 218 vessels, classed as follows:—

American, (including "William Tell" lost)	194
Hawaiian, (including "Faith" condemned)	11
French	7
Russian	4
Bremen and Oldenburg	2
Total	218

Of the above fleet, there have arrived at the various ports of these islands this fall 197, as follows:—

American	176	Russian	4
Hawaiian	8	Bremen and Oldenburg	2
French	7		

Of these, five are sperm whalers, bringing into port, as this season's catch, 1,500 barrels sperm oil; and 192 are right whalers, hailing, as the season's catch, 1,450 barrels sperm, 102,980 barrels whale oil, and 1,312,700 pounds bone. The following tables exhibit the annual totals and average from 1852 to 1859, inclusive. The average for the season has been 535 barrels of oil, and 6,802 pounds bone. This average includes American, French, German, Hawaiian, and Russian whalers:—

TABLE SHOWING THE NUMBER BARRELS OIL AND POUNDS OF BONE TAKEN BY THE NORTH PACIFIC WHALING FLEET FOR THE YEARS 1852–1859, (INCLUDING ONLY VESSELS THAT HAVE RETURNED TO THE SANDWICH ISLANDS,*) AND GIVING THE AVERAGE FOR EACH SEASON.

Year.	No. whalers arriv'd.	No. right whal'rs.	Total on board. Sperm.	Total on board. Whale.	Season's catch. Sperm.	Season's catch. Whale.	Season's catch. Bone.	Average. Whale.	Average. Bone.
1859..	197	192	6,500†	125,000†	2,950	102,980	1,312,700	535	6,802
1858..	218	211	13,935	182,300	1,555	129,240	1,661,700	620	7,904
1857..	165	151	16,595	162,976	3,079	124,460	1,591,548	845	10,540
1856..	177	170	9,013	195,255	3,337	135,708	1,523,650	830	9,015
1855..	250	221	.....‡	.....‡	6,242	225,625	2,443,250	1,081	11,110
1854..	245	232	.....‡	.....‡	4,276	191,843	2,698,180	827	11,200
1853..	252	244	20,857	364,520	....‡	280,360	3,448,300	1,190	11,728
1852..	275	271	17,247	421,585	....‡	337,124	5,357,737	1,244	15,815

Annual average for the last six years to each vessel, 758 barrels oil.

The average of the North Pacific fleet refers only to right whalers, and is obtained after adding together their sperm and whale oil taken during the last season.

Seamen have been abundant. One fact, however, has been remarked—that foreign seamen generally dislike to ship again for the North, and prefer shipping

* The "Faith's" cargo is included in the average.

† These figures are estimated; no complete record has been kept this season of the actual amount on board all the vessels.

‡ No report is obtainable for these years.

on homeward-bound vessels. Their places are supplied by natives of these and other Pacific islands, who are preferred by many captains. They make good whalemen, and are generally content with smaller lays and advances.

Comparing this season's average with those of former years, it will be seen that there is a large and steady falling off, amounting this season to nearly 200 barrels, a decrease which is too heavy and too important not to have a serious effect on the future prosecution of the whaling business in the North Pacific. An important question naturally arises here:—is this merely a temporary decrease, or is it likely to be permanent? Those who have the best opportunities for judging correctly think that it will be permanent—that the whales are annually decreasing in number and size, particularly on the Kodiack and Ochotsk grounds. If such be the case, there can be no reasonable hope held out that the large averages of 1851, '2, and '3 will occur very soon again, nor, indeed, that anything better than the averages of the past two years can be depended on in future. This decrease of oil and scarcity of whales is not, however, confined to the North Pacific. All the old resorts of whalemen—the New Zealand, the Off Shore, the Line, and other cruising grounds—are annually becoming less productive. Not half the sperm oil is taken now, per ship, that was taken twenty years ago.

On the Kodiack the whales were remarkably scarce this season. Some fifty ships visited that ground in the spring, but not more than three or four thousand barrels of oil were taken there. From thence the ships cruise northward, in June and July, through Bristol Bay, where a few whales were seen and captured. Several vessels cruising off Cape Thaddeus in June fell in with whales bound North, and captured a number. It was here that the "Eliza Adams," "Mary and Susan," "Magnolia," "Hibernia," and several others obtained their good fares. These whales, it is thought, were bound North into the Arctic from the Ochotsk bays, where they are said to breed, and leave their calves when a few months old.

The whalemen inform us that the whales captured in the Ochotsk this season were generally small, many of them being mere calves, affording but a few barrels of oil. If this is the case, and the young whales are being thus destroyed, the Ochotsk Sea will very soon be rendered valueless as a cruising ground. Some captains with whom we have conversed have advanced the theory that the numerous whales that abound in and beyond the impenetrable ice barriers of the Arctic, annually come South to the bays along the Asiatic and American shores, where they breed, and stay by their young till four or five months old, or till the ice begins to break up, when they migrate to the Arctic Seas again, leaving their young ones to care for themselves. The ice fields of the Polar Sea are always found to abound with whales, which seem to delight in being in the ice. This instinct does not appear to arise from any fear of man, but is a natural one.

From vessels that have cruised in the Arctic, we learn that the weather has generally been better than in former seasons, but the whales very swift, and inclined to keep close to the ice. The great northern ice barrier is stated to have come much farther south this season, and appears to have changed the usual course of the currents of the Arctic. By some of the ships whales were observed in countless numbers, but generally in the ice or in very rough weather, when

a boat could with difficulty be lowered. One fact appears settled, that whales in the Arctic are as numerous now as they ever were, but that, owing to the generally stormy weather there, and the fact that whales keep in the ice fields, it is the most uncertain whaling ground in the Pacific.

LOSS OF OCEAN STEAMERS.

Ocean steam navigation affords a pretty severe test of enterprise, when we consider the pecuniary hazards with which it has to contend, arising from the defective management, distribution of patronage, and perils of the sea. From its earliest history, disasters have been frequent, and seem to become more numerous in proportion as the number of steamships is increased. Going back to the memorable loss of the "President," in 1841, the principal disasters to British and American steamers, mostly running on trans-Atlantic routes, may be summed up as follows:—

	Lives lost.	Value of vessel and cargo.
President, British	130	$1,200,000
Arctic, American	300	1,800,000
Pacific, American	240	2,000,000
San Francisco, American	160	400,000
Central America, American	387	2,500,000
Independence, American	140	100,000
Yankee Blade, American	75	280,000
City of Glasgow, British	420	850,000
Union, American	none	300,000
Humboldt, American	none	1,600,000
Franklin, American	none	1,900,000
City of Philadelphia, British	none	600,000
Tempest, British	150	300,000
Lyonnais, French	160	280,000
Austria, German	456	850,000
Canadian, British	none	400,000
Argo, British	none	100,000
Indian, British	27	125,000
Northerner, American	32	75,000
Hungarian, British, (about)	120	270,000
Total	2,807	$15,930,000

Showing that a fleet of twenty fine steamers, many of them first-class, have been totally lost within the period named. The President, Pacific, City of Glasgow, and Tempest, were never heard from; the Arctic, San Francisco, and Central America, foundered; the Independence, Yankee Blade, and Northerner, were wrecked on the Pacific, and the Canadian, Humboldt, Franklin, Argo, and Hungarian, on the Atlantic coast; the Lyonnais was sunk by collision, and the Austria was burnt. Not enumerated in this list are two-thirds as many more, generally of a class much inferior, which were lost in the California trade. The casual reader may derive a more distinct impression in regard to the appalling loss of life here recorded, but there are many homes where no fresh recital is needed to recall the memory of the loved and lost.

BRITISH TRADE RETURNS FOR THE YEAR ENDED DECEMBER 31, 1859.

The declared value of the exports of produce of the United Kingdom was £130,440,427, or 13 per cent in excess of that of the preceding year. This is

the largest total ever attained, the amount in 1857, the great year of inflation, having been only £122.066,107. In cotton manufactures alone the improvement on 1858 was £5,820,897, or 16 per cent, and in woolen, silk, and linen manufactures, as well as in the metal trade, the augmentation has been very large. "Haberdashery," which includes all kinds of ready-made clothing, exhibits an extraordinary increase, and the same is the case with regard to hardwares, which likewise depend in a great degree upon the activity of our colonies. There is scarcely a single item on the unfavorable side. Wool presents a falling off of £262,374, but this is simply from the fact that the demand for raw material on the part of our manufacturers has been such as to leave little for exportation. A reduction observable in cotton and linen yarn also is evidence on the present occasion that the activity of foreign manufactures has not kept pace with that of our own. The subjoined table gives the exact increase or decrease under each head :—

DECLARED VALUE OF EXPORTATIONS.

	1858.	1859.	Increase.	Decrease.
Apparel and slops.....	1,943,358	2,191,432	248,074	.....
Beer and ale.....	1,851,755	2,116,207	264,452	.....
Books	390,584	478,287	87,703	.....
Butter.....	541,053	717,395	176,342	.....
Candles.....	157,618	187,830	30,212	.....
Cheese.....	90,718	137,564	46,846	.....
Coal and culm.....	3,045,434	3,266,174	220,740	.....
Cordage	166,625	190,900	24,275	.....
Cottons...	33,421,843	38,742,740	5,320,897	.....
Cotton yarn.....	9,579,479	9,465,704	.....	113,775
Earthenware.....	1,153,579	1,313,364	159,785	.....
Fish.....	576,737	458,739	.....	117,998
Furniture.....	258,022	241,902	.....	16,120
Glass.....	569,205	607,578	38,373	.....
Haberdashery.....	3,462,832	4,288,780	825,948	.....
Hardwares.....	3,277,607	3,826,030	548,423	.....
Leather.....	2,012,916	1,997,703	.....	15,213
Linens.....	4,124,356	4,607,245	482,889	.....
Linen yarn.....	1,746,340	1,684,489	.....	61,851
Machinery.....	3,599,352	3,701,094	101,742	.....
Iron and steel.....	11,197,072	12,327,093	1,130,021	.....
Copper and brass.....	2,855,021	2,600,307	.....	254,744
Lead	616,215	668,037	51,822	.....
Tin.....	1,621,849	1,884,380	262,531	.....
Oil seeds.....	844,978	930,875	85,897	.....
Painters' colors.....	380,559	460,374	79,815	.. ...
Pickles and sauces.....	289,910	341,824	51,914	.....
Plate and jewelry.....	455,006	495,162	40,156	.....
Salt.....	286,222	253,575	.....	32,647
Silks.....	2,096,300	2,351,839	255,539	.....
Soap.....	209,503	225,918	16,415	.....
Soda.....	813,727	1,024,283	210,556	.....
Spirits.....	206,429	305,900	99,471	.....
Stationery.....	803,738	840,172	36,434	.....
Sugar, refined.....	362,472	343,958	.....	18,514
Wool.....	902,341	639,967	.....	262,374
Woolens.....	9,776,944	12,032,831	2,255,887	.....
Woolen yarn.....	2,966,743	3,080,306	113,563	.....
Unenumerated articles..	7,954,284	9,412,469	1,458,185	.....
	116,608,756	130,440,427	.....	.....

Subjoined are the quantities of provision, &c., imported and taken for home consumption :—

	Imported.		Taken for home consumption.	
	1858.	1859.	1858.	1859.
Grain, wheat.....qrs.	4,241,719	4,000,922	4,275,435	4,023,578
Grain of other kinds....	4,087,679	3,905,842	4,135,382	3,954,814
Indian corn..... ...	1,750,825	1,314,303	1,762,320	1,321,633
Flour and meal ....cwt.	3,860,764	3,330,770	3,894,972	3,357,250
Bacon, pork, lard, etc...	576,289	583,710	Free.	Free.
Butter and cheese.....	751,653	832,210	740,000	818,7 59
Animals.....No.	285,048	347,341	Free.	Free.
Eggs	134,685,000	148,631,000	134,552,000	148,714,400
Cocoa.....lbs.	10,338,404	6,006,759	3,071,115	3,480,987
Coffee.....	60,697,265	65,353,029	35,338,111	34,492,947
Sugar.....cwt.	9,010,796	9,098,880	8,746,729	8,905,744
Tea.....lbs.	75,132,535	75,077,452	73,217,484	76,362,008
Rice .....cwt.	3,692,023	1,450,090	1,761,865	1,306,672
Spirits.....galls	8,506,055	11,056,671	4,561,735	4,911,676
Wines.....	5,791,636	8,196,026	6,697,224	7,262,965
Tobacco.....lbs.	62,217,705	50,671,264	34,110,751	34,791,262
Currants & raisins..cwt.	939,865	986,919	643,338	785,970
Lemons & oranges...bu.	972,653	1,103,296	983,777	4,077,820
Spices .....lbs.	16,082,218	11,614,903	4,760,677	5,015,737
" .....cwt.	72,254	33,833	20,689	21,049

The following are the comparative imports and exports of raw material :—

	Imported.		Exported.	
	1858.	1859.	1858.	1859.
Flax.....cwt.	1,283,905	1,432,037	.....	.....
Hemp..... ...	882,110	1,088,249	.....	....
Raw silks.... .....lbs.	6,227,576	9,920,891	2,314,519	2,152,327
Cotton .....cwt.	9,235,198	10,946,331	1,535,800	1,563,778
Wool.....lbs.	126,738,723	133,374,634	26,702,542	29,106,750
Tallow.....cwt.	1,235,789	1,074,336	22,997	6,791

Of silk manufactures the total stands thus :—

	Imported.		Taken for home consumption.	
	1858.	1859.	1858.	1859.
Silk manuf. of Europe, lb.	827,652	987,080	812,895	954,872
" " of India, pcs.	207,081	343,084	83,012	47,774

The annexed summary shows the manner in which the 47 articles that are henceforth to be retained in the British tariff may be classified, only 16 being for revenue, and 13 being terminable at specific dates :—

1. Articles on which a duty is to be levied for revenue purposes :—Chicory, cocoa, and chocolate, coffee, corn and flour, currants, figs and fig cake, pepper, plums, prunes, raisins, spirits, sugar, tea, tobacco, wine, wood.

2. Articles on which a duty is to be levied to countervail a duty of inland revenue :—Beer or ale, of all sorts, hops, cards (playing cards,) dice, malt, plate (gold or silver,) vinegar.

3. Articles on which the duties are to cease on and after a specified date :—March 31, 1861, corks, hats or bonnets. February 1, 1861, plating, gloves of leather, of all sorts.

4. Articles containing sugar to be charged with duty until the 1st of July, 1861 :—Almond paste, cherries (dried,) cocoa paste and chocolate, comfits, (dried,) confectionery, ginger (preserved,) marmalade, plums (preserved,) succades.

5. Articles of farinaceous character, to be rated as flour :—Arrow-root, bar-

ley, (pearled,) biscuit and bread, cassava powder, potato flour, powder, (hair,) powder, (perfumed,) powder, (other sorts,) rice, sago, semolina, vermicelli and maccaroni.

SUMMARY.

1. Articles for revenue	16	4. Articles containing sugar, ditto	9
2. Articles countervailing	7	5. Articles of the same class as flour	11
3. Articles paying duty to fixed dates	4		
Total of articles			47

WHEAT TRADE.

The following table shows the imports and exports of wheat into France and England for many years, with the exports from the United States in a corresponding period. The general result is an increasing trade between the United States and Europe in breadstuffs. The French wheat includes flour :—

IMPORT AND EXPORT OF WHEAT INTO AND FROM FRANCE AND THE UNITED STATES, AND IMPORT OF WHEAT AND WHEAT FLOUR INTO GREAT BRITAIN.

	Great Britain. Imports.		France.		United States. Exports.	
			Imports.	Exports.		
Years.	Flour. Cwt.	Wheat. Bush.	Wheat. Bush.	Wheat. Bush.	Wheat. Bush.	Flour. Bbls.
1841	1,263,126	19,278,032	3,754,982	5,077,283	.....	.....
1842	1,180,754	21,777,440	4,514,543	6,462,949	.....	.....
1843	486,878	7,520,990	9,093,692	3,388,212	311,685	841,474
1844	980,645	8,792,616	5,172,060	5,768,207	558,917	1,436,575
1845	945,864	6,973,680	6,900,238	3,654,585	389,716	1,195,230
1846	3,198,876	11,460,728	16,624,422	3,467,833	1,613,795	2,289,476
1847	6,329,058	21,251,232	28,754,658	4,154,427	4,399,951	4,382,496
1848	1,765,475	20,752,104	4,494,199	3,576,546	2,934,704	2,119,083
1849	3,349,830	32,763,024	1,264,217	5,002,152	1,527,534	2,108,013
1850	3,855,059	30,036,745	2,772,081	6,919,398	608,661	1,885,448
1851	5,314,414	40,496,072	2,003,943	6,327,735	1,026,725	2,202,335
1852	3,889,583	25,551,136	4,126,640	4,014,107	2,694,540	2,799,339
1853	4,646,400	35,595,512	10,103,107	2,101,206	3,890,141	2,920,918
1854	3,646,505	26,448,816	18,972,988	1,053,132	8,036,665	4,022,886
1855	1,904,224	21,342,608	12,165,022	822,256	798,844	1,204,540
1856	3,970,100	32,582,664	28,769,782	572,168	8,154,877	3,510,626
1857	2,178,148	27,503,656	15,865,574	1,344,063	14,570,331	3,712,053
1858	3,860,764	37,175,471	8,927,380	19,336,320	8,926,196	3,512,169
1859	3,330,770	32,008,298	4,425,244	23,278,601	3,002,016	2,431,828

BEET ROOT SUGAR PRODUCT IN THE ZOLLVEREIN.

The following is the quantity of beet roots manufactured into sugar in the Zollverein for the last two years :—

	1858.	Factories.	1859.
Prussia	24,812,925	221	31,600,308
Brunswick	1,293,852	14	2,628,440
Baden	1,139,735	1	798,126
Wurtemberg	935,325	6	4,157,915
Bavaria	377,166	7	421,780
Thuringia	225,853	2	15,770
Saxony	118,738	3	136,131
Hanover	84,846	2	303,845
Hesse	20,028	1	15,770
Total	28,409,674	251	36,668,557

The sugar product is about seven per cent, amounting to 1,927,680 cwt. in 1858, and 2,600,000 in 1859.

GOLD EXPORTS OF CALIFORNIA.

San Francisco papers contain the full returns of the gold trade and general commerce of that port for 1859, of which an abstract was furnished some days since through our overland dispatches. We copy as follows :—

Gold exported to—	1857.	1858.	1859.
New York	$35,287,778	$35,578,236	$39,831,937
England	9,347,748	9,265,739	3,910,840
New Orleans	244,000	313,000	314,500
Panama	410,929	299,265	279,949
China	2,993,264	1,916,007	3,100,756
Sandwich Islands	86,803	98,672	142,190
Manilla	278,900	49,975	26,200
Australia	32,000	631	.....
Mexico	41,500	14,500	.....
Chili	33,479	11,500	.....
Society Islands	.....	2,000	.....
Japan	.....	....	34,000
Other countries	220,296	500	.....
Total	$48,976,696	$47,548,025	$47,740,462

The total imports of treasure were :—

From Mexico	$2,431,021 25
Chili	14,852 00
Australia	4,885 00
Sandwich Islands	28,785 96
Total for 1859	$2,478,544 33
Total for 1858	2,323,501 49

SUGAR PRODUCT, 1859.

The total production of sugar has been for several years comparatively as follows :—

PRODUCTION OF SUGAR.

	1849.	1854.	1855.	1856.	1857.	1859.
Cuba .....tons	220,000	349,502	375,475	357,347	369,610	415,000
Porto Rico	43,600	40,107	41,058	53,377	35,660	50,000
Brazils	121,000	114,509	113,754	105,603	125,000	75,000
United States	98,200	224,662	173,317	115,713	86,903	105,000
West Indies, French	56,300	78,780	81,713	110,000	106,686	110,000
" Danish	7,900	10,000	9,711	11,204	12,212	8,500
" Dutch	13,000	17,102	16,701	18,291	19,000	14,000
" British	142,200	172,215	146,498	147,911	146,925	180,000
East Indies	73,400	40,121	37,104	58,383	57,822	160,000
Mauritius	44,700	101,000	107,235	115,000	110,000	120,000
Java	90,000	74,771	59,210	68,240	72,911	110,000
Manilla	20,000	41,908	46,210	48,422	42,210	60,000
Total cane	915,300	1,264,677	1,207,986	1,209,491	1,134,959	1,307,500
France	38,000	76,951	44,669	92,197	88,126	115,000
Belgium	5,000	8,760	9,000	9,180	10,101	17,500
Zollverein	33,000	70,821	73,981	80,758	87,319	115,000
Russia	13,000	17,192	18,192	21,207	22,208	40,000
Austria	6,500	14,211	17,111	19,102	19,892	70,000
Total beet-root	95,500	187,935	162,953	222,489	222,646	357,500
Grand total	1,010,800	1,452,612	1,370,939	1,431,980	1,357,605	1,665,000

BURNING OF COTTON AT SEA.

We copy from the New York *Herald* the following list of vessels, laden with cotton, that have been destroyed by fire since the 1st of January, 1859. It appears that sixteen of that class of vessels have been burnt since the above date, at an estimated value of $2,247,000. Eight of those, or one-half of them, were burnt in port, caused by the stevedores smoking their pipes, and dropping fire into the cotton. A portion of those burnt at sea are supposed to be from ignition caused by the concentration of the sun's rays through the decklights :—

LIST OF FIRES IN COTTON LADEN VESSELS.

1859–60.	Name.	From.	Destination.	Value.
Jan.	Ship Oakland	Charleston	Liverpool	$160,000
Feb.	Ship Mary and Adeline	At New Orleans.	Cork	75,000
"	Ship Vanguard	At New Orleans.	Cronstadt	150,000
"	Ship Monticello	New Orleans	Liverpool	200,000
May	Ship Pleaides	New Orleans	Queenstown	150,000
"	Bark Thames, (Br)	Savannah	At Liverpool	50,000
June	Bark Amy	Apalachicola	Norwich	30,000
July	Ship Stalwart	New Orleans	Liverpool	250,000
"	Ship Sarah Minot	New Orleans	Liverpool	300,000
Sept.	Ship Heloia	At New Orleans.	Liverpool	200,000
Dec.	Ship Wm. Stetson	Mobile	Liverpool	275,000
Jan.	Bark Gleaner	At Apalachicola.	Rotterdam	50,000
Mar.	Ship Independence	At New Orleans.	Liverpool	120,000
April	Bark Fanny Holmes	At Apalachicola.	Antwerp	70,000
"	Schooner R. L. Tay	At Savannah	Philadelphia	7,500
May	Ship Switzerland	At Apalachicola.	Liverpool	160,000
	Total			$2,247,000

OHIO WOOL PRICES.

The following table shows the value of Ohio fleece wool in October of each year, from 1840 to 1859, from actual sales :—

	Firsts.	Seconds.	Thirds.		Firsts.	Seconds.	Thirds.
1840	45	36	31	1850	47	42	36
1841	50	45	40	1851	41	38	42
1842	average 38½ a 35			1852	49	45	40
1843	41	35	30	1853	55	50	43
1844	42	37	32½	1854	42	36	32½
1845	36½	30	26	1855	50	42	34
1846	34	30	26½	1856	55	47	37
1847	34½	29	25	1857	56	49	37
1848	32	28	24	1858	53	46	36
1849	41	37	32	1859	58	49	35

Showing an improvement in the finer kinds especially. For 1857, the price in August is given, as there were no sales in October.

CEYLON EXPORTS OF PRODUCE, OCT. 1 TO SEPT. 30.

The chief articles of export from Ceylon have been as follows :—

	1855 '56.	1856 '57.	1857 '58.	1858 '59.
Coffee, planta. and native, cwt.	446,498	545,913	552,643	584,562
Zimmt, lbs.	1,009,391	711,905	805,586	719,831
Rice, cwt.	12,540	32,818	15,673	18,858
Cocoa oil, galls.	956,960	1,324,609	1,178,851	980,882

BRAZIL TRADE.

IMPORT AND STOCK OF FLOUR, ETC., FROM 1848 TO 1860.

Year.	Flour imported from the United States.	Flour imported from elsewhere.	Total flour imported.	Consumption of flour.	Stock on hand 1st Jan'y.	Flour re-exported.	Prices of 1st quality flour 1st January.	No. Amer. vessels arriv'd.
1848....	226,618	18,293	244,911	139,885	82,000	57,860	20 a 21	319
1849....	188,078	8,777	196,855	146,594	79,809	54,713	17 a 18	437
1850....	180,689	26,399	206,918	159,621	67,000	48,181	15 a 16	314
1851....	252,419	25,618	278,036	165,850	68,000	129,601	15 a 16	300
1852....	228,412	18,836	247,248	145,996	50,000	49,608	14 a 15	250
1853....	272,001	25,450	297,460	161,593	40,000	150,850	20 a 21	267
1854....	176,723	34,703	211,426	166,821	25,000	56,605	23	219
1855....	227,806	73,562	300,868	163,599	13,000	70,269	25 500	332
1856....	301,729	15,675	317,404	185,687	80,000	151,716½	22 a 25	295
1857....	355,858	15,846	371,704	223,621	60,000	128,083	22	275
1858 ...	372,976	29,179	402,155	237,631	80,000	144,524	18 a 20	297
1859....	336,133	32,459	368,592	258,258	100,000	135,334	15 a 16	306
1860....	.....	.....	.....	.....	75,000	.....	16 a 17	...

SUGAR AND COFFEE IN EUROPE.

IMPORTS AND STOCKS OF SUGAR AND COFFEE AT THE PRINCIPAL EUROPEAN PORTS, FOR THE TWELVE MONTHS ENDING 31ST DECEMBER, 1858 AND 1859.

SUGAR.

	Imports. 1858.	Imports. 1859.	Stock 31st Dec. 1858.	Stock 31st Dec. 1859.
	Tons.	Tons.	Tons.	Tons.
Holland*	107,000	97,200	10,600	7,100
Antwerp	14,620	14,490	1,160	2,020
Hamburg	23,500	26,500	1,620	5,750
Havre	26,500	50,370	380	14,060
Bremen	8,610	8,480	100	690
Trieste	39,730	11,060	7,320	4,720
Genoa	24,460	26,780	2,720	5,790
Leghorn	11,790	9,840	1,100	1,130
Continent	255,210	244,720	25,000	41,260
Great Britain	422,800	428,700	90,500	96,500
Total	678,010	673,420	115,500	137,760

COFFEE.

	Imports. 1858.	Imports. 1859.	Stock 31st Dec. 1858.	Stock 31st Dec. 1859.
	Tons.	Tons.	Tons.	Tons.
Holland	68,750	61,620	35,750	32,850
Antwerp	7,410	11,400	3,600	1,900
Hamburg	33,500	39,250	7,000	3,250
Havre	11,750	22,620	2,000	3,370
Bremen	4,960	6,870	990	210
Trieste	9,660	10,020	2,810	2,350
Genoa	4,950	6,840	490	340
Leghorn	2,020	1,630	620	130
Continent	143,010	160,250	53,260	44,400
Great Britain	23,640	26,190	8,370	8,800
Total	166,650	186,440	61,630	53,200

* The stocks in Holland are in first hands only; in all other countries in first and second hands.

PROGRESS OF BRITISH SHIPPING—RAPID INCREASE OF STEAM TONNAGE.

The Liverpool *Mercury*, in a recent number, presents the following review of the shipping interest of Great Britain :—

It appears from a return just laid before Parliament, that the number of British registered vessels employed in the home and foreign trade has increased from 17,828 in the year 1855, to 19,570 in the year 1859 ; that the tonnage has increased from 3.990,170 tons to 4,269,109 tons, and that the number of men employed, exclusive of masters, has increased from 168,537 in 1855, to 172,506 in 1859. There is, therefore, a considerable increase of vessels, tonnage, and seamen employed in 1859, but that year is not the best of the series, for in 1858 the number of vessels was 20,071, the tonnage was 4,325,242, and the number of men employed was 177,832. The pressure on the shipping interest, which was no doubt very severe in the year 1859, although somewhat diminished in 1860, was the cause of the difference. There are fluctuations from year to year, but always a considerable increase if a period of four or five years is taken.

It appears, however, from this return, that a great change is taking place in the proportions between the steam and sailing vessels of this country. As regards the sailing vessels, the increase is only from 3.701,214 tons in 1855, to 3.879,592 in 1859 ; whilst in steam vessels the increase in that period is from 288,956 tons to 389,515. This, it will be seen, is a very much more rapid rate of increase. The tendency in the British mercantile marine is very strong to substitute the rapid and regular power of steam for the baffling and uncertain power of wind, and this tendency will become still stronger if the experiments which have been tried by the Pacific Ocean Steam Navigation Company in economizing fuel should be as successful as they are expected to be. According to statements made with regard to the result of these experiments, the saving of fuel is from one-half to two-thirds. A much smaller saving of fuel than this would cause a very great extension of steam navigation, and effect its employ ment in trades in which no one has hitherto thought of applying it.

The increase in the tonnage of the sailing vessels employed in the home trade is from 691,128 to 777,422 tons, whilst the increase in the tonnage of steamers employed in the home trade is from 57,415 to 90,867 tons. There is no increase, but a decrease from 210.114 to 132,768 tons in British vessels employed partly as home trade ships and partly as foreign-going ships, whilst in steam vessels engaged in that trade there is an increase from 12,562 tons to 21,123 tons. In foreign-going ships the increase in sailing vessels is from 2,799,972 tons to 2,877.527 tons. The total increase in sailing vessels is thus from 3,701,214 tons to 3,879,592 tons, whilst the increase in steam vessels is from 288,956 to 389,515 tons.

An increase of 100,000 tons of steam shipping is equal to more than an increase of 200,000 tons of sailing shipping, whether we consider the cost of construction or the power of navigation. One thing is quite clear through all these returns, namely, that the mercantile steam marine of this country far surpasses that of all other nations in extent, and is increasing in a much greater ratio than that of any other nation. The consequence of this is that the British steamship owner has the carrying of nearly all the first-class passengers who cross the ocean, and of all the finer and more profitable articles of merchandise conveyed to or from this country. As far as second-class passengers and heavy goods are concerned, the American and the British shipowners divide the greater part of the trade of the world between them.

UNITED STATES TRADE WITH MARSEILLES.

During the year ending Dec. 31, 1859, the number of arrivals of United States vessels at Marseilles has far exceeded that of the preceding year. There arrived in all eighty-five vessels, gauging 37,681 tons, the cargoes of which were worth $1,478,153 ; there cleared eighty five vessels, with a tonnage of 37,201

tons, with outward bound cargoes valued at $1,031,114. During the preceding twelve months there were forty-eight arrivals and forty-seven departures; the former measuring 20,110 tons, with cargoes worth $1,675,731; the latter 20,658 tons, with exported goods to the amount of $1,290,918.

Thus it will be observed that, although the number of arrivals, departures, and tonnage for the year just closed exceeds by nearly one hundred per cent those of the former year, yet the amount of importation in 1858 exceeds that of 1859 by $197,578, and the exportation by $259,804. This is to be attributed to the fact that in the year 1858 the articles of importation from the United States were all valuable, consisting chiefly of tobacco, sugar, coffee, and cotton; and in 1859 the largest portion of the ships that arrived were laden with staves and coal for the use of the belligerents. These ships have all or nearly all cleared in ballast for the Italian and Sicilian ports. This accounts also for the difference in the amount of exported goods during these two years.

THE UNITED STATES AND CANADA.

Canadian newspapers publish the annual returns showing the progress of trade and navigation of the province for the year 1859. The canal returns show a falling off in the tonnage and merchandise which have passed through, and the tolls which have been collected from the Welland Canal, with slight increase in the same items on the St. Lawrence, and a largely and steadily augmenting trade on the Chambly Canal. The value of the principal articles imported via the St. Lawrence during the year 1859 is $11,549,068, against $10,765,077 for the previous year. The free goods imported from the United States under the reciprocity treaty were of the value in 1858 of $5,564,115, and in 1857 of $7.106,116.

The goods passing through the United States in bond were of the value of $4,546,491; the produce of the United States, including free goods, $12,237,541; and goods not the produce of the United States were of the value of $5,351,865.

IMPORTS AND EXPORTS OF BOOTS AND SHOES, LEATHER AND HIDES,

FOR THE LAST THREE FISCAL YEARS.

IMPORTS.

	1857.	1858.	1859.
Boots and shoes	$127,651	$87,101	$123,666
Hides and skins, raw	10,010,090	9,884,853	13,011,326
Leather, tanned	1,606,458	1,259,711	2,358,794
Japanned leather	.....	226,142	226,002
Skins, tanned	809,273	806,412	1,994,777
Skivers	68,194	35,976	120,978

EXPORTS.

	1857.		1858.		1859.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Boots and shoes ...prs	561,505	813,995	609,982	663,905	627,850	820,175
" Ind. rubbers	573,238	331,125	247,889	185,941	102,537	52,006
Hides .....No	153,726	624,867	.....	875,753	.....	520,589
Leather.....lbs.	1,716,546	497,714	2,505,867	605,589	2,063,040	499,718
Morocco, etc.	.....	2,119	.....	13,099	.....	41,465
Saddlery.....	.....	45,222	.....	55,280	.....	58,870

IRON TRADE IN SWEDEN.

As iron is the principal branch of Swedish industry, and certainly that which is of the greatest interest to our readers, it may be as well here to give a brief description of the Swedish irons, which are of various qualities, each mine having distinct properties. They may be classed under three heads:—

1. The Danemora irons, which are the most valuable, and of which nine-tenths are used in England, (almost entirely in Sheffield,) where their value varies from £25 to £34 per ton. The whole quantity made at all the Swedish forges, where these ores are used, only amounts to about 4,500 tons, and the recent convulsions in the commercial world have had no effect upon their value.

2. Next in estimation to the Danemora irons are the numerous brands which are used for steel and other purposes, for which their good quality renders them desirable. For the sale of these irons Sweden depends upon the state of trade in England and the United States. In 1857, these irons were worth from £15 to £19 per ton in England, whereas in 1858 their value decreased to from £13 to £15 per ton. In a good state of trade these irons have a higher value than the third class of Swedish irons.

3. These are commonly called "assorted bar iron," or "common Swedish iron." When, however, trade in the two principal countries where the second class of iron is used is depressed, the common irons have a higher value, as they find a market in every part of the world. The price of common Swedish irons was in Sweden, at the date of Mr. GREY'S report, from £10 to £13 per ton.

During the two years preceding Mr. GREY'S report, Mr. BESSEMER'S process of making steel had been tried at Edsken, near Hœgbo, in the province of Gefle, upon a larger scale and with more success up to that time than in any other country, and great results were then anticipated—results that, we doubt not, will be little short of being fully realized. The steel so made is already in practical use in Sweden, where a species of Swedish steel, called in England German steel, has hitherto been employed for general purposes, for which cast-steel only is used in England and other countries where manufactures are in a more advanced state. At the manufactory of Messrs. BOLINDER, at Stockholm, the tools used are mostly of BESSEMER steel, and those persons who manipulate with them say that they are as good as is required.

TRADE OF BOSTON FOR APRIL.

The following is the monthly statement of the value of imports and exports of goods, wares, and merchandise entered at the port of Boston during the month of April, 1860:—

IMPORTS.		EXPORTS.	
Dutiable, entered for consumption	$1,795,905	Domestic merchandise	$1,152,985
Dutiable, warehoused	839,696	Foreign " dutiable	74,937
Free (exclusive of specie & bullion)	852,484	Foreign " free	58,700
Specie and bullion	.....	Specie and bullion	6,030
Total imports	$3,488,085	Total exports	$1,292,652
		Merch'dise withdrawn from warehouse for consumption	639,807

TOBACCO AND THE SPANISH GOVERNMENT.

The Spanish government have issued proposals for Virginia and Kentucky tobacco to the extent of 300,000 Castilian quintals, or 30,000,000 lbs.

POSTAL DEPARTMENT.

DEAD-LETTERS—NEW LAW.

The following are among the recent acts of Congress which the whole community will approve of. The number of dead-letters will diminish under the new law; and letter writers generally, will perceive the utility of placing their printed names on each envelop. The reduced rate for the receipt and delivery of letters in the city, to one cent, is certainly a good improvement:—

AN ACT IN RELATION TO THE RETURN OF UNDELIVERED LETTERS IN THE POST-OFFICE.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That when any person shall indorse on any letter his or her name and place of residence, as writer thereof, the same after remaining uncalled for at the office to which it is directed thirty days, or the time the writer may direct, shall be returned by mail to said writer, and no such letters shall be advertised, nor shall the same be treated as dead-letters, until so returned to the Post-office of the writer, and there remain uncalled for one quarter. Approved 6th April, 1860.

AN ACT AUTHORIZING PUBLISHERS TO PRINT ON THEIR PAPERS THE DATE WHEN SUBSCRIPTIONS EXPIRE, AND IN RELATION TO THE POSTAGE ON DROP LETTERS.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the second clause of section third of the act of thirtieth August, eighteen hundred and fifty-two, establishing the rates of postage on printed matter, is hereby so modified as to read as follows, namely:—

Second. There shall be no word or communication printed on the same after its publication, or upon the cover or wrapper thereof, nor any writing nor mark upon it, nor upon the cover or wrapper thereof, except the name, the date when the subscription expires, and the address of the person to whom it is to be sent.

SEC. 2. And be it further enacted, That on all drop-letters delivered within the limits of any city or town by carriers, under the authority of the Post-office Department, one cent each shall be charged for the receipt and delivery of said letter, and no more.

Approved 3d April, 1860.

THE BRITISH POST-OFFICE.

The following table shows the number of letters delivered in the United Kingdom during the last year, with the rate of increase, and the proportion of letters to population:—

	Number of letters in 1859.	Increase per cent on number in 1858.	Proportion of letters to population.
England	446,000,000	about 4½	22 to each person.
Ireland	47,000,000	" 7	7 " "
Scotland	52,000,000	" 2	16 "
United Kingdom	545,000,000	4½	18 "

JOURNAL OF INSURANCE.

LIFE INSURANCE LAWS OF NEW YORK.

The following are the provisions of "An Act to amend an act entitled 'an act to provide for the incorporation of life and health insurance companies, and in relation to agencies of such companies,' passed June twenty-four, eighteen hundred and fifty-three." Passed April 12, 1860:—

The people of the State of New York represented in Senate and Assembly, do enact as follows:—

SECTION 1. Section one of the act entitled "An act to amend an act entitled 'An act to provide for the incorporation of life and health insurance companies, and in relation to agencies of such companies,' passed June twenty-four, eighteen hundred and fifty-three," passed July eighteen, eighteen hundred and fifty-three, is hereby amended so as to read as follows:—

No company shall be organized under this act, for the purposes mentioned in the first department, with a less capital than one hundred thousand dollars, and no company shall be organized, for the purposes mentioned in the second department, with a less capital than twenty-five thousand dollars. The whole capital of such company shall, before proceeding to business, be paid in and invested in stocks of the United States or of the State of New York, the market value of which shall be at the time at or above par, or in bonds and mortgages on improved unencumbered real estate within the State of New York, worth seventy-five per cent more than the amount loaned thereon, (but in such valuation farm buildings shall not be estimated,) or in such stocks or securities as now are or may hereafter be receivable by the banking department. And it shall be lawful for any company organized under this act, to change and re-invest its capital, or any part thereof, at any time they may desire, in the stocks or bonds and mortgages or securities aforesaid No company organized for the purposes mentioned in the first department, shall commence business until they have deposited with the superintendent of the insurance department of this State the sum of one hundred thousand dollars, invested as hereinbefore provided for the investment of the capital of such company; and no company organized for the purposes named in the second department shall commence business until they have deposited with the superintendent of the insurance department of this State, the sum of twenty-five thousand dollars, invested as hereinbefore provided for the investment of the capital of such company. The superintendent of the insurance department shall hold such securities as security for policy holders in said companies, but so long as any company so depositing shall continue solvent, may permit such company to collect the interest or dividends on its securities so deposited, and from time to time to withdraw any of such securities. on depositing with the said superintendent such other securities of like value as those withdrawn, and of the same character as those above mentioned.

SEC. 2. Section eight of the act entitled "An act to provide for the incorporation of life and health insurance companies, and in relation to the agencies of such companies," passed June twenty-four, eighteen hundred and fifty-three, is hereby amended so as to read as follows:—

It shall be lawful for any company organized under this act to invest its funds or accumulations in bonds and mortgages on unencumbered real estate within the State of New York, worth fifty per cent more than the sum so loaned thereon, on* in stocks of the United States, stocks of this State, or of any incorporated city of this State, if at or above par, and to lend the same or any part thereof on the security of such bonds and mortgages, and upon the pledge of such stocks; provided that the current market value of such stocks shall be at least ten per cent more than the sum so loaned thereon.

* So in original.

SEC. 3. Any company organized under the acts to which this is an amendment, having first obtained the consent of the superintendent of the insurance department thereto in writing, may, by a vote of a majority of their directors, accept the provisions of this act, or any of them, and amend their charter to conform with the same.

SEC. 4. This act shall take effect immediately.

TOWN INSURANCE LAWS OF NEW YORK.

AN ACT TO AMEND AN ACT ENTITLED "AN ACT TO AUTHORIZE THE FORMATION OF TOWN INSURANCE COMPANIES," PASSED APRIL SEVENTEENTH, EIGHTEEN HUNDRED AND FIFTY-SEVEN. PASSED APRIL 3, 1860.

The people of the State of New York, represented in Senate and Assembly, do enact as follows:—

SECTION 1. So much of section five, of the act entitled "An act to authorize the formation of town insurance companies," passed April seventeenth, eighteen hundred and fifty-seven, as relates to the filing of undertakings therein specified, within five days, is hereby amended so as to read as follows:—

Every such undertaking shall, within thirty days after the execution thereof, be filed by the secretary of such company in the office of the clerk of the town in which the office of said company is located.

CINCINNATI FIRES—PAID DEPARTMENT.

The following shows the number of fires, burning chimneys, false alarms, &c., from the commencement of the paid fire department, (April 1st, 1853,) up to the present time, (April 1st, 1860,) a period of seven years:—

	Fires.	Burning chimneys.	False alarms.	Burning beds.	Total.	Loss.	Insurance.	Loss over Insurance.
1854 ..	106	20	13	.	202	$680,906	$330,079	$350,817
1855 ..	104	6	2	.	117	120,816	84,831	35,985
1856 ..	93	6	2	.	101	276,095	103,730	172,365
1857 ..	104	7	1	.	113	184,119	157,489	26,630
1858 ..	74	6	2	.	82	359,784	219,051	130,733
1859 ..	84	6	2	.	92	121,499	401,471	22,028
1860 ..	109	13	.	1	120	295,914	217,250	78,664
	728	64	22	1	836	$2,038,133	$1,213,911	$825,222

RECAPITULATION OF LOSSES IN MAY, 1860.

	Vessel and freight.	Cargoes.	Total.
Steamers	$70,500	$61,000	$131,500
Ships	540,500	972,200	1,612,700
Barks	105,500	71,900	176,500
Brigs	52,500	56,200	108,700
Schooners	77,300	83,100	160,400
Total	$956,300	$1,242,500	$2,180,800

LOSSES SINCE JANUARY, 1860.

January	$1,223,900	$749,950	$1,973,850
February	1,295,000	1,114,000	2,409,000
March	1,537,450	1,894,500	3,431,950
April	783,100	1,480,700	2,263,800
May	946,300	1,243,500	2,189,800
Five months 1860	$5,785,750	$6,482,650	$12,269,400
Same time 1859	5,109,400	5,818,560	10,918,960

LIFE INSURANCE.

A convention of life insurance companies was recently held in New York city. In reference to the rate of interest, the committee reported in favor of four per cent. as the safest for the next hundred years. The funds now held in trust by the life insurance companies of this country amount to $22,000,000, the sums insured for are $180,000,000, and the number of lives about 160,000. Over $2,000,000 are paid out every year by the falling in of claims, mostly to widows and orphans.

COMMERCIAL REGULATIONS.

DUTY ON WOOL IN FRANCE.

The *Echo Agricole* shows that the abolition of the import duty on foreign wool will not injure the French farmer, and that the French producer need feel no alarm at the proposed measure. From the beginning of the century up to 1823 foreign wool entered France free of duty, but in the last named year the price of wool underwent a heavy decline in all the markets of Europe. A certain description of merinos, for example, which were worth in France 4 f. to 4 f. 50 c. the kilogramme, fell successively to about 2 f., and has since remained on an average at 2 f. to 2 f. 50 c. Protection was in fashion in those days, and an import duty of 33 per cent *ad valorem* was imposed on wool. But this duty though, so to speak, prohibitive, did not cause a rise in price. From 1823 to 1834 the average price was 2 f. 20 c. the kilogramme, the lowest being 1 f. 70 c., and the highest 2 f. 80 c. In 1834 the duty was reduced to 22 per cent, including what is called the dixieme; and that duty was maintained up to 1855, a period of 20 years, during which the price varied according to the abundance of the crops and the manufacturing and commercial situation, from 1 f. 40 c. (in 1848) to 2 f. 50 c. (in 1855.)

In 1856 the duty was reduced to 15 c. the kilogramme; and from that year up to 1859 the price of wool in France was, notwithstanding commercial and financial crises, 2 f. 40 c. to 2 f. 50 c. the kilogramme. It will be seen that under the most moderate duty, that which now exists, the price of wool has not fallen, and the reason is this—a reduction of duty has always for effect to maintain prices in foreign markets, and the wool of France being the best, if not the finest, of all wools, our manufacturers, influenced by the firmness of foreign markets, hasten to lay in stocks of French wool, which is the quality that suits them best. During the last ten years the importation of foreign wool has been on the increase; in 1850 and in preceding years it was 20,000,000 kilogrammes, and since 1852 it has been, on an average, 35,000,000. How is it that with such an importation the price of wool in France does not decline? The answer is, 1. Because the price of wool in France must be on a level with the price of wool abroad. 2. Because the consumption of woolen fabrics in France is constantly on the increase. 3. Because the export of French woolen fabrics abroad increases considerably every year. On this subject the customs returns present some curious results. It is known that the French manufacturers of woolen goods cannot compete with foreigners, except on the condition that the Custom house

shall restore to them, on the export of their fabrics, the duties which were paid on the import of the raw material.

This is what is called drawback. For so many kilogrammes of tissues exported the Custom-house reimburses the duty paid on the import of so many kilogrammes of wool. Proportionate rates are established for that purpose according to the sort of tissues exported. In 1856 the Board of Customs thus reimbursed as drawback 9,379,000 f. to French exporters, though in that year it only received on the import of wool 8,571,000 f. In 1857 the duties levied on the importation of wool were 7,900,000 f., and the drawback reimbursed was 6,183,000 f. In 1858 the duties levied on imports were 7,600,000 f., and the drawback reimbursed was 5,500,000 f. It will be seen that in France very little foreign wool remains in the form of tissues, since the export takes away almost all that is brought in, and this explains why at one period the exporting manufacturers of Elbeuf supported a demand for the maintenance of the duty of 33 per cent on foreign wool. The higher this duty was the greater was the advantage derived by them from the premiums paid to them on the export of woven goods. French agriculture would therefore gain nothing by the maintenance of this customs machinery, which is entirely to the advantage of exporters. This machinery will be suppressed at the same time as the duty on wool.

EXTRACTS FROM THE PORT REGULATIONS OF HAVANA.

No one will be allowed to disembark on the island without a passport, except in case of inevitable loss of papers by shipwreck, capture, or other similar cause, and the presentation of a bondsman, who will answer to the authorities for the term of one year, and present him should he be demanded.

Passengers from foreign ports should have their passports certified by the Spanish consul.

No master of a vessel will receive on board any passenger, to convey from one point to another, without a passport, under penalty of twenty-five dollars.

Any person that receives a slave on board any vessel, to be conveyed from one point to another, without permission from the master of the slave, shall incur a penalty of fifty dollars, without prejudice to any action at law that may be brought against him therefor.

No master of a vessel will receive on board any deserting soldier or sailor, under the pains and penalties prescribed in the military code.

All colored persons, slaves or free, that arrive from foreign countries, shall be sent immediately to a deposit, prepared by the government for that purpose, were they shall remain until the moment of leaving the island. Or they can remain on board the vessel, provided the consignee will give a bond for one thousand dollars, to be forfeited in case they leave her, which bond will not be canceled until the return of the boarding officer on the departure of the vessel.

Purchases made from slaves or servants shall be forfeited, and the purchaser punished as he may deserve. The same is understood of purchases from soldiers, unless it be some article of their own manufacture, or made with the intervention of an officer.

No person shall make, sell, purchase, or carry, under the penalties assigned by law, any of the following weapons:—Pistols of all classes—muskets or carbines less than four palms in the barrel—guns or pistol canes of any kind—sword canes nor any cane with a concealed blade of any kind—dirks or daggers of any kind less than four hands in the blade—knives with spring backs, or any other contrivance to fix the blade when open—bayonet without the gun—nor any pointed knife, great or small, of any kind.

Much complaint having been made of the injury sustained from the owners of eating and liquor shops, who, together with their assistants, insidiously entice

and entrap the crews of foreign vessels, on the plea of being their countrymen, and the identity of language, which induces them to join their meetings, where they suggest to them the idea of leaving their vessels, as also of claiming the wages they suppose due, holding out to them the prospect of new and more lucrative voyages; these inveiglers having no other interest than to make the sailors pass the night at their houses, causing them a daily expense on trust, which is increased by fraud and intoxication, in order to be claimed afterwards of the masters or consignees of the vessels to which they belong; it is ordered that the owners of such establishments and boarding-house keepers, shall not admit them into their houses, nor give them anything on trust, much less allow them to pass the night there, without written consent of the masters of their respective vessels, under pain of forfeiture of what they may supply them, and all damages that may arise from the concealment and detentions of mariners.

This law has been amended by the imposition of a fine of twenty-four dollars, on any boarding-house keeper that shall keep a sailor over night, without permission, over and above the forfeiture above named.

NAUTICAL INTELLIGENCE.

LIGHT IN PORT FAIRY, AUSTRALIA.

With reference to Notice to Mariners, No. 47, dated 20th October, 1859, the Department of Trade and Customs at Melbourne, Victoria, has given the following additional information relative to the light exhibited on and after the 1st day of September, 1859, at Port Fairy, on the south coast of Australia:—

FIXED AND FLASHING LIGHT IN PORT FAIRY.

The light is a fixed red light, varied by a bright flash every three minutes, and is visible seaward from a vessel when bearing between N. E. ¼ E. and S. by E. ¼ E. The light is elevated 41 feet above the mean level of the sea, and in clear weather should be visible from a distance of 9 miles. At the distance of 6 miles and upwards it will appear as a steady light for a space of one minute and forty seconds, be suddenly eclipsed thirty-four seconds, then exhibit a bright flash for twelve seconds, and be again eclipsed for thirty-four seconds, when the steady light will reappear. When within 3 miles of the light the eclipses will be scarcely observable, a continued fixed light being at that distance, in clear weather, visible between the intervals of the bright flashes. The illuminating apparatus is dioptric or by lenses of the fourth order. The lighthouse is circular, built of stone, and colored red. It stands on the southeastern part of Rabbit Island, about 5 yards from high water mark, and its approximate position is latitude 38° 24′ S., longitude 142° 20′ east of Greenwich. From the lighthouse, the south end of Julia Percy Island bears W. by S ¼ S., distant about 13 miles; the S. S. E. extreme of reef off Dusty Miller Island S. by W. ¼ W., three quarters of a mile; the northeast extreme of Rabbit Island reef N. E. by E., 1¼ cables' lengths; and the outer mooring anchor buoy N. by E. ¼ E., three quarters of a mile.

CAUTION.—The mariner is particularly requested to note the distinctive feature between the Port Fairy light and the Cape Otway light, the latter being white, and varied by a flash every minute. No stranger should attempt to pick up the Port Fairy light in thick weather, nor enter the port at night. When working in shore to the westward of the port, be careful not to bring the light to bear to the eastward of E. N. E.; nor should the light be approached nearer than a mile until it bears W. by S., when a N. W. by W. course may be steered for the roadstead. When it bears S. by W. ¼ W., anchor in 6¼ or 7 fathoms water; do not bring the light to the southward of this bearing, to avoid fouling the moorings. The bearings are magnetic. Variation in Port Fairy 7° 50′ E. in 1859. By command of their lordships,

JOHN WASHINGTON, Hydrographer.

LONDON, November 14, 1859.

LIGHT IN PORTLAND BAY, AUSTRALIA.

With reference to Notice to Mariners, No. 47, dated 20th October, 1859, the Department of Trade and Customs at Melbourne, Victoria, has given the following additional information relative to the light exhibited on and after the 1st day of September, 1859, at Portland Bay, on the south coast of Australia:—

FIXED LIGHT IN PORTLAND BAY.

The light is a fixed red light, and is visible seaward from a vessel when bearing between N. W. and S. by E. It is elevated 116 feet above the mean level of the sea, and should be seen in clear weather from a distance of about 13 miles. The illuminating apparatus is dioptric or by lenses of the fourth order. The lighthouse, built of stone, and colored gray, stands near the flagstaff on Battery Hill, and its approximate position is latitude 38° 22′ S., longitude 141° 39′ east of Greenwich. From the lighthouse the eastern extreme of the Lawrence Rocks bears S. E., distant about 4 miles; the extreme north point of Whalers' Bluff N. W. by N. one mile; and the buoy on Whalers' Reef N. by W. ½ W. one mile.

Caution.—Vessels bound to Portland Bay from the westward must be careful, in rounding the Lawrence Rocks, not to bring the light on Battery Hill to bear to the northward of N. W. by W. ½ W. After passing the rocks, a course may be shaped for the light, keeping it on the port bow, and not standing into a less depth than 6 fathoms. When abreast the anchorage, the jetty light, (which at the exhibition of this light was altered in color from red to green,) will be visible bearing west. The bearings are magnetic. Variation 7½° E. in 1859. By command of their lordships,

JOHN WASHINGTON, Hydrographer.

London, November 14, 1859.

FIXED LIGHT ON LILLE FEISTEEN ISLAND, NORWAY.

The Royal Norwegian Marine Department at Christiania has given notice, that on and after the 10th day of November, 1859, a light would be exhibited from the lighthouse on Lille (Little) Feisteen Island lying off the western coast of Norway. The light is a fixed red light, elevated 68 feet above the mean level of the sea, and should be visible in clear weather from a distance of 12 miles. It is seen from all points of the compass, and will be lighted throughout the year. The illuminating apparatus is of the fourth order. The height, color, and description of the lighthouse are not given. It stands in latitude 58° 49½′ N., longitude 5° 30½′ east of Greenwich.

FIXED LIGHT ON SLOTTERO ISLAND.

Also, that on and after the above date a light would be exhibited from the lighthouse erected on Slottero Island, lying off the southern part of the entrance to Selbo Fiord, west coast of Norway. The light is a fixed white light, elevated 152 feet above the mean level of the sea, and should be seen in clear weather from a distance of about 18 miles It is visible seaward and towards Selbo Fiord, and will be lighted throughout the year. The illuminating apparatus is of the second order. The lighthouse is a circular iron tower, 68 feet high, and painted red. Its position is given in latitude 59° 54½′ N., longitude 5° 5′ east of Greenwich. This longitude is 2 miles east of that given in the Admiralty charts. The bearings are magnetic. Variation 21° west in 1859. By command of their lordships,

JOHN WASHINGTON, Hydrographer.

London, November 23, 1859.

FIXED LIGHT AT BURNT COAT HEAD, BAY OF FUNDY.

The Board of Works at Halifax, Nova Scotia, has given notice, that on and after the 20th day of October, 1859, a light would be exhibited from the lighthouse recently erected on Burnt Coat Head, on the south shore of the Basin of Mines, at the head of the Bay of Fundy. The light is a fixed white light,

elevated 75 feet above the mean level of the sea, and should be visible in clear weather from a distance of 13 miles. The light-tower, which is square, is attached to the main building, and both are painted white. From the tower, Cape Blow-me-down bears W. by N. ¼ N., distant 26¼ miles; the Brickkiln Ledges N. W. ¼ W., westerly, 7¼ miles; and Economy Point N. W. ¼ N. 4 miles.

BEACON LIGHTS AT MARSHALL COVE AND MARGARETVILLE.

Also, that on and after the 27th October, 1859, beacon lights would be exhibited from the buildings recently erected at Marshall Cove and Margaretville, on the eastern shore of the Bay of Fundy. The beacon at Marshall Cove will show, at the distance of about 5 miles, a fixed white light, and on a nearer approach a green light. At Margaretville the beacon will show, at the distance of about 5 miles, a fixed white light, and on a nearer approach a red light. The buildings are square, and painted white. Marshall Cove (formerly called Port Williams) is distant about 27 miles, and Margaretville about 37¼ miles, to the eastward of Digby lighthouse. The bearings are magnetic. Variation 20° W. at Burnt Coat Head; 18° W. at Marshall Cove; and 19° W. at Margaretville, in 1859. By command of their lordships,

JOHN WASHINGTON, Hydrographer.

London, November 22, 1859.

FIXED LIGHT AT CALELLA, COAST OF SPAIN.

The Minister of Marine at Madrid has given notice, that on and after the 15th day of December, 1859, a light would be exhibited from the light-tower recently erected on the hill of the Torreta, in the province of Barcelona, on the south coast of Spain. The light is a fixed white light, varied by a flash every two minutes. It is elevated 166 feet above the mean level of the sea, and should be visible in ordinary weather from a distance of 18 miles. The illuminating apparatus is dioptric, or by lenses of the third order. The light-tower is cylindrical, colored white, and rises 13 feet above the adjoining dwellings of the light-keepers. It stands at about half a mile to the westward of Calella village, and 57 yards from the margin of the sea. Its position is given as latitude 41° 36′ 40″ N.; longitude 2° 39′ 38″ east of Greenwich.

BUDA ISLAND; MOUTH OF THE RIVER EBRO.

Also, that from a recent survey, it was found that the east point of the island of Buda, at the mouth of the river Ebro, province of Barcelona, had advanced considerably (it is said 4 miles) to the eastward beyond that marked in the Spanish chart of the year 1833. From the east point Coll de Balaguer castle bears N. 13° E.; Merla Tower, N. 10° W.; Vendrell, N. 54° E.; and the south part of the Sierra de Monsia, N. 54° W. The bearings are magnetic. Variation 18° west in 1859. By command of their lordships,

JOHN WASHINGTON, Hydrographer.

London, December 16, 1859.

FIXED AND FLASHING LIGHT ON CAYO PAREDON GRANDE, CUBA.

The Spanish Government has given notice, that on and after the 1st day of November, 1859, a light would be exhibited from the lighthouse recently erected on the northern part of Cayo Paredon Grande, on the north coast of the island of Cuba. The light is a fixed white light, varied every minute by a flash. It is elevated 159 feet above the mean level of the sea, and should be seen in clear weather from a distance of 20 miles. The illuminating apparatus is by a Fresnel lens of the first order. The light-tower is an iron structure erected on a base of hewn stone, which rests on a foundation of rugged rock about 26 feet above the sea level. The color of the tower is not given. It stands in latitude 22° 29′ 25″ N.; longitude 78° 9′ 42″ west of Greenwich. By command of their lordships,

JOHN WASHINGTON, Hydrographer.

London, December 10, 1859.

ROCKABILL LIGHTHOUSE, AND ST. JOHN'S PIONT LIGHT, IRELAND.

The Port of Dublin Corporation hereby give notice, that a lighthouse has been erected on Rockabill—off the east coast of County Dublin—from which a light will be exhibited during the night of the 1st day of July next, 1860, and thenceforth will be lighted every night from sunset to sunrise. Notice is also given, that from and after same date the light on St. John's Point, Dundrum Bay, will be colored red.

SPECIFICATION GIVEN OF THE POSITION AND APPEARANCE OF THE LIGHTS, BY MR. HALPIN, SUPERINTENDENT OF LIGHTHOUSES.

ROCKABILL LIGHT. Rockabill lighthouse is erected on the summit of the larger rock—2½ miles eastward of Skerries Islands—and is in latitude 53° 35′ 45″ N., and longitude 6° 0′ 30″ W., bearing from Drogheda Bar S. S. E., distant 11 miles; from the Kish lightship N. by E., ½ E., distant 17 miles; from the Nose of Lambay Island N. N. E., distant 6¼ miles; from Balbriggan Pier light, S. E. by E., distant 6¼ miles. The light will be a flashing light, giving a bright flash every twelve seconds, of the natural color white, as seen from between the bearings of S. ½ E., (round by the eastward,) to N. E. by N., and will be colored red round by the westward between the same bearings. The illuminating apparatus is dioptric (holophotal) of the first order, its focal plane 155 feet over the mean level of the sea, and in clear weather the white light should be seen from a distance of 18 miles. The tower is circular, of gray limestone, and the whole height from its base to the top of its lantern is 105 feet. A range of storehouses surround the lower story of tower; the dwelling houses are built to the northwestward, on a lower level of the rock.

ST. JOHN'S POINT LIGHT. From and after the date of the exhibition of the Rockabill light, (1st July, 1860,) the intermitting light on St. John's Point, Dundrum Bay, will be colored red, the times of its eclipses will continue as heretofore.

NOTE.—At same date with the exhibition of the new light on Rockabill, and the change in the color of the light on St. John's Point, some alterations will be made in the distinctive characters of floating lights off the east coast of Ireland, conformably to notices this day published. Bearings stated are magnetic. Variation 25½° west in 1859. By order,

WILLIAM LEES, Secretary.

DUBLIN, December 22, 1859.

TEMPORARY LIGHT AT COLOMBO, EAST COAST OF CEYLON.

The Colonial Government at Ceylon has given notice, that the light-tower at Colombo, will be under repairs from the 1st of February to the 1st of April, 1860, and that during that period a temporary light will be exhibited from the clock tower.

CAUTION.—The mariner is cautioned not to place too much dependence on this temporary light, and to keep the deep sea lead going when approaching Colombo by night. If soundings between 30 and 40 fathoms be obtained, the vessel will be 15 or 18 miles from the land, and had better not near it till daylight. By command of their lordships,

JOHN WASHINGTON, Hydrographer.

LONDON, November 21, 1859.

INTENDED FLOATING LIGHT, NEAR THE VARNE SHOAL, STRAITS OF DOVER.

Notice is hereby given, that with a view of indicating the position of the Varne and Ridge shoals, in the Straits of Dover, to vessel approaching them in the night, it is the intention of this corporation to cause a light-vessel to be placed near the southwest end of the Varne, and a quick revolving red light to be exhibited therefrom on or about the 1st October next. Further notice, relative to the exact position, &c., of the light vessel, will be duly published. By order,

P. H. BERTHON, Secretary.

TRINITY-HOUSE, LONDON, February 24, 1860.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

STEAM MARINE OF THE UNITED STATES.

By the following statement, it appears that the aggregate tonnage of the steam marine of the United States amounts to 153,366 tons, of which 94,111 is owned in New York, and cost $16,231,088 13. The balance, 59.255, belongs to different ports in the United States, the cost of which is not given, and, of course, is not included in that of New York.

As far as practicable, the names of different companies, tonnage, cost, and where employed, of all vessels belonging to New York, are first given, then those of other ports, as follows :—

NEW YORK—PACIFIC MAIL STEAMSHIP COMPANY.

The ships of this line are employed running between Panama, San Francisco, Oregon and Washington Territories.

Steamships.	Tonnage.	Cost.	Steamships.	Tonnage.	Cost.
California.....	1,058	$200,082	Golden Age.....	2,281	400,000
Oregon.....	1,100	198,504	St. Louis.....	1,620	271,000
Panama.....	1,087	211,356	Republic.....	852	210,590
Golden Gate.....	2,067	431,844	Washington.....	1,640	390,000
Columbia.....	777	169,043	Cortez.....	1,117	198,000
Fremont.....	559	98,424	Orizaba.....	1,450	241,000
Taboga, (tug).....	189	39,638	Sierra Nevada ...	1,246	210,000
John L. Stephens..	2,189	309,594	Uncle Sam.....	1,080	160,000
Sonora.....	1,616	302,000			
Total.....				21,928	$4,042,125

ATLANTIC AND PACIFIC STEAMSHIP COMPANY.

California service, between New York, New Orleans, Havana, and Aspinwall.

Northern Light...	1,767	$290,000	Illinois.....	2,124	480,000
North Star.....	1,868	285,400	Moses Taylor.....	1,373	250,000
Ariel.....	1,295	200,000			
Champion	1,540	154,000	Total.....	9,967	$1,659,400

NEW YORK, SOUTHAMPTON, AND HAVRE.

Vanderbilt.....	3,360	$510,000
Ocean Queen.....	2,830	450,000
Total.....	6,190	$960,000

UNITED STATES MAIL STEAMSHIP LINE.

Between New York, Havana, and New Orleans.

Star of the West..	1,173	$250,000	Granada.....	1,059	175,000
Empire City	1,752	225,000			
Philadelphia.....	898	180,000	Total.....	4,882	$830,000

NEW YORK AND NEW ORLEANS STEAMSHIP COMPANY.

Cahawba.....	1,643	$207,000
De Soto.....	1,675	170,000
Total.....	3,318	$377,000

NEW YORK AND SAVANNAH.

Augusta	1,310	$180,000	Star of the South.	960	80,000
Alabama	1,261	180,000			
Florida	1,261	180,000	Total	4,792	$620,000

NEW YORK AND CHARLESTON, S. C.

Columbia	1,347	$190,000	Nashville	1,220	165,000
James Adger	1,155	150,000			
Marion	900	148,000	Total	4,622	$653,000

NEW YORK AND RICHMOND, VA.

Roanoke	1,071	$115,458
Jamestown	1,320	130,547
Yorktown	1,400	153,957
Total	3,791	$399,962

NEW YORK, SOUTHAMPTON, AND HAVRE.

Arago	2,240	$450,000
Fulton	2,307	450,000
Total	4,547	$900,000

CROMWELL'S LINE.

Screw Propellers—New York, Baltimore, Washington, Norfolk, Savannah, Portland, and other ports.

Huntsville	840	$125,000	Parkersburg	715	75,000
Montgomery	840	125,000	Thomas Swan	462	60,000
Potomac	448	60,000	R. R. Cuyler	1,500	200,000
Locust Point	462	60,000	Monticello	750	80,000
Mount Vernon	750	80,000	George's Creek	460	50,000
Chesapeake	460	60,000			
Patapsco	454	60,000	Total	8,141	$1,035,000

SOUTHERN STEAMSHIP COMPANY.

New Orleans, Texas, Florida, and Vera Cruz.

Arizona (iron)	750	$100,000	Orizaba	600	100,000
Calhoun	508	50,000	Gen. Rusk (iron)	417	417,000
Charles Morgan	1,208	150,000	Atlantic	623	75,000
Galveston	945	120,000	Tennessee	1,449	140,000
Texas	1,223	140,000	Suwanne	495	60,000
Magnolia	843	120,000	Austin (iron)	900	100,000
Matagorda (iron)	616	100,000			
Mexico	1,058	140,000	Total	11,635	$1,812,000

Two-thirds of these ships are owned in New York, the balance in New Orleans.

NORTH ATLANTIC STEAMSHIP COMPANY.

New York and Aspinwall—soon to be withdrawn.

Atlantic	2,849	$764,000	Adriatic	4,145	1,000,000
Baltic	2,733	790,000			
Total				9,727	$2,554,000

SAN FRANCISCO AND PANAMA.

Pacific	1,003	$100,000	Hermann	1,734	410,000
Brother Jonathan	1,350	190,000			
Total				4,087	$700,000

PANAMA RAILROAD COMPANY.

Central American coast, in connection with the railroad.

Guatemala	1,071	$180,000
Columbus	500	100,000
Total	1,571	$230,000

CHARLESTON, SAVANNAH, AND HAVANA.

Isabel	1,115	$100,000

NEW YORK AND MATANZAS.

Matanzas	1,100	$110,000

NEW YORK AND HAVANA.

Quaker City	1,428	$200,000

PHILADELPHIA AND SAVANNAH.

State of Georgia	1,187	$180,000

BOSTON AND BALTIMORE.

Joseph Whitney	1,003	$100,000

BOSTON AND PORTLAND.

Lewiston	963	$90,000

BOSTON AND PHILADELPHIA.

Cambridge, P.	800	$75,000

Besides the steamers set down above, there are numerous others engaged in the coasting trade or running short passenger trips that we might enumerate if we had space. The aggregate tonnage of these amount to 41,604.

Including this latter class, the aggregate tonnage of our commercial steam marine is 153,366 tons, of which 94,111 is owned in New York. The total cost of the vessels in New York hands alone is $16,231.088 13. The aggregate cost of the sea-going steamers of the United States is, as near as can be estimated, $25,000,000.

RAILROADS IN CUBA.

The Cuba *Messenger* describes the progress of railroads in that Island as follows:—Our readers abroad may be able to form an idea of the progress of our Island by our merely mentioning the fact that the different railroad lines now finished and in the course of construction throughout the country, are 27 in number, and comprise, altogether, 1,315,522 kilometres, (about 818 English miles,) of which at least 500 miles are in operation. The whole amount thus far invested on these railroad lines, up to last year, was $17,027,414 66; and, according to the statistics published, they yielded in 1858 the sum of $3,386,840.

The principal line—the first ever constructed, (from this city to Guines, and now extending to La Union,)—was commenced in November, 1835; the line from Cardenas to Macagua was started in 1838, and the Jucaro railroad in 1839. All the others have been traced and commenced since 1840.

We append a list of the different lines in the manner they are generally designated in the corresponding sections :—

1st Line—1st Section.....	From Havana to Bejucal.
2d "	From Bejucal to Guines.
3d "	From Guines to La Union
4th "	Branch from San Felipe to Batabano.
5th "	Branch from Rincon to Guanajay
2d Line.....	From Cardenas to Macagua.
3d Line.....	From Cardenas to Jucaro.
4th Line	From Matanzas to La Isabel. Branch from Navajas to Tramojos, and from Tramojos to Claudio.
5th Line	From Regla to Guanabacoa (horse cars.)
6th Line—1st Section.....	Matanzas to Guanabana.
2d "	to Coliseo.
3d "	to Tosca.
4th "	to Delgado.
5th "	to Bemba.
7th Line—1st Section.....	From Caibarrien to Remedios.
2d "	Continuation from Remedios to S. Andres.
8th Line—1st Section.....	From Cienfuegos to Palmira.
2d "	From Palmira to Las Cruces.
3d "	From Las Cruces to Ranchuelo.
4th "	From Ranchuelo to Villa Clara.
5th "	From Villa Clara to Sagua.
9th Line	From Carahatas to Quemados de los Guines.
10th Line	From Trinidad to Sancti Spiritus.
11th Line	From Macagua to Trinidad.
12th Line—1st Section.....	From Mallorquin to Las Pozas.
2d "	From Las Pozas to Macagua.
13th Line	Sagua la Grande (along the river bank.)
14th Line	Havana (Regla) to Matanzas. (Finished to Guanabacoa, double track, and thence Jaruco, single do.)
15th Line	From Guines to Matanzas. Branch to Madruga.
16th Line	Havana City Railroad, (surrounds the old city and goes to Carmelo, at the outlet of the Almendares river, 3 miles west of the city.)
17th Line	From Guanabacoa to Cojemar.
18th Line	Western Railroad. From Havana to Pinar del Rio. Branch from Palacios to the San Diego Baths.
19th Line	From Havana to Marianao.
20th Line	From Pinar del Rio to Coloma.
21st Line	Sancti Spiritus to Port Las Tunas.
22d Line	From Nuevitas to Puerto Principe.
23d Line	From Cobre (copper mines) to Punta de Sal (at St. Jago.)
24th Line	Guantanamo Railroad.
25th Line	From St. Jago to Sto. Cristo. Branch from Sto. Cristo to Maroto. Branch from Marota to Sabanilla.
26th Line	From San Miguel to Baga (Puerto Principe.)
27th Line	The Caney Branch, belonging to the line from St. Jago to Sabanilla.

There are besides two or three other lines in view, but nothing decided yet about them.

With the assistance of a good chart of the Island, it will easily be seen at a first glance, that when all these lines are finished and in operation, the principal and most important cities and districts of the Island will form a sort of grand central trunk, extending its branches to both coasts.

We are most happy that we are able to state that the work on the prin-

cipal lines not yet finished is progressing rapidly, and that a system of solidity and durability in the manner of constructing has been recently adopted, which, unfortunately, was overlooked to a great extent in the earlier part of railroad building in this Island. Some arrangements have been entered into recently, between the Havana and the Regla and Matanzas Railroad Companies, that will tend to avoid great expenditures in a double line running almost parallel to each other in a portion or section between this and Matanzas, and from what we have been able to glean in different directions, we are fully persuaded that the future constructions of railroad lines in this rich and flourishing Island will be conducted in the manner best calculated to promote both public and private convenience.

RAILWAY FROM BANGOR TO NEW ORLEANS.

There was completed in January the last two links in the great chain of railways from Maine to Louisiana—the first, the last twenty five miles on the Mississippi Central, and the second, of sixty-one miles between Lynchburg and Charlotteville, on the Orange and Alexandria Railroad, popularly known as the Lynchburg Extension. This route, as will be seen by the following table of distances, is within a fraction of 2,000 miles in length, from Bangor to New Orleans, of a continuous rail track, with the exception of four short ferries, viz., the Hudson River, the Susquehanna, the Potomac, and the James River at Lynchburg, the last two of which will soon be supplied with bridges:—

From New Orleans to Canton, Miss., by the New Orleans, Jackson, and Great Northern Railway	206
Canton to Grand Junction, Miss., by the Mississippi Central Railway	165
Grand Junction to Stephenson, Ala., by the Memphis and Charleston Railway.	219
Stephenson to Chattanooga, Tenn., by the Nashville and Chattanooga Railway	38
Chattanooga to Cleveland, Tenn., by the Cleveland and Chattanooga Railway.	29
Cleveland to Knoxville, Tenn., by the East Tennessee and Georgia Railway..	83
Knoxville to Bristol, Tenn., by the East Tennessee and Virginia Railway	130
Bristol to Lynchburg, Va., by the Virginia and Tennessee Railway	204
Lynchburg to Alexandria, by the Orange and Alexandria Railway	169
Alexandria to Washington, D. C., by the Washington and Alexandria Railway	6
Washington to Baltimore, Md., by the Baltimore and Ohio Railway	39
Baltimore to Philadelphia, by the Philadelphia, Wilmington, & Baltimore Rail'd	98
Philadelphia to New York, by the Philadelphia and New York Railroad line.	87
New York to New Haven, Conn., by the New York and New Haven Railway	74
New Haven to Springfield	62
Springfield to Worcester, by the Western Railway	98
Worcester to Boston, by the Boston and Worcester Railway	45
Boston to Portland, Me., by the Eastern and Portland, Saco, and Portsmouth Railways	107
Portland to Bangor, Me., by the Penobscot and Kennebec and Androscoggin and Kennebec Railways	137
Total	1,996

This vast chain of railways is composed of eighteen independent roads, costing in the aggregate, for 2,394 miles of road, $92,784,084, or nearly one-tenth of the whole railway system of the United States, of which 1,996 miles are used in this continuous line. The roads from Washington City to New Orleans, embracing a distance of 1,249 miles, have had the contract for the great

through mail to New Orleans, once a day, since the 1st July, 1858. Now that these two links are completed, we hope soon to see the Department, if it is ever again in a position to pay contractors, to carry out the original plan of two daily mails, in 75 hours, between Washington City and New Orleans, which is the schedule time proposed by the different companies when the contract was awarded.

COTTON AND RAILROADS.

The transportation of cotton is an important element of business for the railroads, of which the freight receipts are considerable. The proportion and the profits of the seventeen leading Southern roads were as follows:—

	Gross receipts.	Freight receipts.	Net receipts.	Profit p. ct.	Cost.
Houston and Texas Central	$76,957	$49,586	$37,850	14.20	$265,000
N. Orleans, Jackson, & Gt. North'n.	784,023	476,574	417,093	9.40	4,437,990
Southern	249,372	152,355	120,984	6.90	1,738,600
Alabama and Tennessee	155,628	106,255	78,907	6.23	1,262,781
Montgomery and West Point	446,153	179,829	143,330	10.10	1,419,672
Mobile and Ohio	751,880	571,429	420,231	8.60	4,895,349
Nashville and Chattanooga	605,368	317,283	126,204	5.58	2,262,000
East Tennessee and Georgia	318,718	103,622	187,566	6 90	2,689,755
Memphis and Charleston	1,330,812	509,991	778,036	12.57	6,188,035
Mississippi and Tennessee	176,462	105.430	67,080	4 47	1,498.535
Tennessee and Alabama	75,129	27,206	47,579	21.25	219,162
Raleigh and Gaston	258,268	164,775	95,196	9.76	973,300
Wilmington & Manchester	427,043	161,008	209,793	8.47	2,476,548
Charleston and South Carolina	283,263	173,190	151,536	8.31	1,823,639
South Carolina	1,596,695	1,030,566	627,638	16.18	3,879,600
Atlanta and West Point	362,060	161,640	197,359	16 74	1,179,447
Georgia Central	1,645,554	1,265,518	839,604	22.40	3,700,000
Total	9,543,405	5,526,157	4,346,484	16.24	40,909,411

ABOLITION OF CANAL TOLLS IN CANADA.

The project for abolishing tolls on merchant vessels passing through the Provincial canals has passed the Canadian Legislature, and is now a law. Henceforth the produce of the Western States and of Upper Canada, taking the St. Lawrence route to the ocean, will have the advantage of free transit through a long line of artificial navigation. The government have sacrificed a hundred and fifty thousand dollars of revenue; or, rather, that amount is made up by general tax from other sources. Last year the number of vessels passing through the canals of Canada was 26,466, with a tonnage of 2,455,021. Of these, 22,800 were Canadian, with a tonnage of 1,828,383. Deduct 300,000 tons for the traffic on the local canals, from which the tolls are not removed, and there is still a balance of Canadian over American tonnage of 926,638. The predominance of benefit to Canadian commerce from abolition of the tolls will not be, however, in anything like so large a proportion; for, small as may be the difference produced in favor of the St. Lawrence route by remission of these dues, it will still attract a large diversion of trade from the States, unless counteracted by a corresponding diminution of charges upon American routes.

JOURNAL OF MINING, MANUFACTURES, AND ART.

IRON PRODUCTION FOR 1859 IN EASTERN PENNSYLVANIA.

The following statements, made up by the Secretary of the Board of Trade, will show the extent of the iron production of Eastern Pennsylvania :—

The proprietors of works in the Schuylkill and Lehigh regions have, in most cases, been personally consulted for the results given below for 1859, and they are very near to absolute accuracy. For the Susquehanna regions, upper and lower, this accuracy was naturally unattainable. and the statistics are made up from the best judgment of such proprietors as have their headquarters in this city.

In the Schuylkill region nearest this city, there were nineteen steam anthracite blast furnaces, out of a total of twenty-eight existing there, in blast during 1859. This includes five furnaces at Lebanon, the location of which is somewhat nearer the Schuylkill than the Susquehanna, and of which the production is divided in seeking a market—part going to Pittsburg. There were also five charcoal furnaces in blast in the same district, producing about 1,000 tons of iron each. Several establishments, embracing two or more furnaces, had but one continuously in blast, so that nearly all the separate proprietary interests were more or less active.

The following was the production of this district in 1859 :—

Anthracite furnaces	of the Schuylkill proper	tons	48,500
" "	at Lebanon		25,000
Charcoal "	of the Schuylkill		5,500
Total			79,000

For 1858 the exact production could not be obtained, but it was variously estimated at 38,000 to 45,000, and was probably about half that obtained in 1859. During the former year most of the furnaces going out of blast in 1857 remained idle, and did not resume until late in that year, or early in 1859.

In the Lehigh region the anthracite steam furnaces were unusually active in 1859, producing an aggregate of nearly 135,000 tons of pig iron. The stacks here built are the largest in use, several being more than 18 feet across the bosh, and producing proportionally more iron than the furnaces of the Schuylkill, which last do not exceed 14 feet, and are generally but twelve.

But three or four furnaces remained idle in the Lehigh region during 1859, and one new rolling mill was built for the business of 1860. Several of these furnaces produced the enormous quantity of 10,000 tons each during the year—a considerable excess over any previous production. The Thomas furnaces, and part of the Lehigh Crane Company's works, produced at the rate here named, and the works last mentioned made up a total of nearly 42,000 tons as its aggregate for the year.

From the Susquehanna iron-making region we have less definite information. Many furnaces were put in blast in 1859 which had been out for 1858, and the general testimony is that the aggregate of anthracite iron made was about the same as in 1857. As near as may be estimated for furnaces for which positive

information is not attainable, the anthracite production of the vicinity of the Susquehanna was about 75,000 tons for 1859. The charcoal iron made in this district is much more difficult of access for the last year; but as the area is large, and timber often abundant, it was probably 20,000 tons. Taking this estimate, with the better known production of the Schuylkill and Lehigh, we roughly state the total of charcoal iron for Eastern Pennsylvania at 39,000 tons.

The following is a tabular statement of the iron production for 1859 and previous years:—

ANTHRACITE IRON.

	1856. Tons.	1857. Tons.	1858. Tons.	1859. Tons.
Lehigh region..	121,021	118,299	100,000	137,822
Schuylkill region.....	43,275	48,310	35,000	73,500
Main Susquehanna	39,704	35,257	25,000	37,000
N. W. branches Susquehanna..	39,484	40,502	25,000	37,500
Total.....	243,484	237,368	185,000	286,332

CHARCOAL IRON.

	1859.
Lehigh region.....tons	5,000
Schuylkill region.....	5,500
Susquehanna region.	20,000
Total.....	30,500

PRODUCTION NEAR PHILADELPHIA FOR 1859.

	Anthracite.	Charcoal.	Total.
Lehigh .....tons	137,832	5,000	140,832
Schuylkill.....	73,500	5,500	79,000
Total.....	211,332	10,500	221,832

The value of this quality of iron, at the low average price for anthracite of $22 per ton, which was the ruling quotation for the year, is $4,649,304, to which the value of the charcoal iron produced would add enough to make up the sum of $5,000,000.

ANALYSIS OF PLATINA AND GOLD IN MISSOURI.

BY DR. THEODORE WEISZ.

[Translated from the Mississippi Handel Zeitung.]

My investigations upon the average value of the precious metals found in the mineral of Madison County, Mo., being now completed, enables me to publish the result of my labor.

There was brought forth from the depth of six feet beneath the surface a considerable quantity—this was pulverized, and of this there was taken an average trial specimen for investigation.

The result of the investigation was, that there was found in this ore 0.00043 per cent gold, and 0.00086 per cent platina, which makes an aggregate of 739 grains of gold per ton, and 1,478 grains of platina per ton.

The value of the gold is.....	$29 56
The value of the platina is.....	18 58
Or a total of.....	$48 14

Although this yield shows a sufficiently large result to make it worthy of

working, there is yet cause to presume that the quantity of precious metals increases in proportion as the shaft is deepened. I will, therefore, publish from time to time communications upon the product.

In order to form an opinion as regards the working ability of this mining concern, I herewith present a table showing the value of the gold ores most known, from which it can be seen that the mines in Madison County belong not to the poorest, and deserve, indeed, such attention that there may be found capitalists who, by participation, *i. e.*, by contributing to the enlargement of pecuniary means, could cause a "go ahead," and who would carry on the business upon a large scale, inasmuch as material enough is on hand to last for centuries:—

		Per cent gold per ton.	Grains.	Value.
1	In the Nagybangoer district, in Hungary, the richest ores	0.0048	8,257	$33 00
2	In California, year 1849, special cases	0.156	26,880	1,120 00
	In California, at present time	0.00027	480	19 20
3	Reichenstein, Silesia, arsenial residue	0.002367	407	16 28
4	Kremnitz, upon prepared ores	0.0015	258	10 32
5	Nagybangoer district, the inferior ores	0.00088	151.3	6 04
6	In the Altay silver and gold ores	0.000781	134.3	5 36
7	Aranyca Idna, Hungary ores	0.000651	111	4 45
8	Kremnitz, unprepared ores	0.0005	86	3 44
9	In the Ural, gold sand containing	0.0005	86	3 44
10	Salzburg, unprepared ores	0.000156	26.8	1 07
11	Freyberg, Saxony, in the pyrites of iron	0.000004	11.2	2 45
12	Rammelsberg Harz	1.730000	2.35	0 94
13	Rheineand	1.000000132	2.27	0 09
14	Freyberg, Saxony, layer and passages	.....	0.5	0 02
15	Upper Harz, in the zinc-blend	.....	0.53	0 02

PHOTOGRAPHY IN MACHINE BUILDING.

For copying working drawings, this process is much used in large shops. The government has employed it for some years. Tracings from perfected drawings may be inaccurate—figures especially may be wrongly copied, but a photograph is of course sure to be right, and prevents many mistakes which are not cheaply rectified in the finished work—when unmatched parts come together and do not fit.

The cheaper productions of engravings of machinery, etc., will be of great advantage to the professions and trades concerned. Pictures on blocks for woodcuts are quite commonly made by the photographic process instead of the draftsman's pencil. For perspective representations, this lessens the expense, and perfects the lines. It is of course inapplicable to sectional and strictly mechanical drawings, in either plane elevation or isometrical perspective. Photographing on stone has been used for the same purpose—for making the picture to be engraved. Recently, the engraving itself, or rather the lithotype—the impression on the stone which produces the pictures on paper, has been done by photography without the aid *of subsequent* engraving. Photography has also been applied to copper printing. These arts are already beginning to be a commercial success, and are rapidly improving.

SAW CAPACITY.

A circular saw, 2½ feet in diameter, and making 270 revolutions per minute, will saw 40 square feet of oak and 70 square feet of spruce per hour per horse-power.

PROGRESS—SCALES.

Art has by no means exhausted itself either in the fine or mechanical departments. In the latter, particularly where usefulness and economy are both combined. astonishing progress has been made within the last few years. In this respect it must be conceded that the American artisan excels those of any other country. Weighed in the balance of a just criticism, all are obliged to admit that the scales of FAIRBANKS & Co., New York, who have devoted their time and attention to the science of weighing, as applied to the compound balance, by which it has been brought to the highest perfection, are, without exception, the best ever invented. We know, whereof we affirm, because we have tested their value, and are fully satisfied of their superior merits. The various descriptions of their platform scales embrace every variety of size and form, from the mammoth contrivance of a canal lock scale, capable of weighing 500 tons, to the nice and delicate balance required for chemical analysis and pharmacy. in which the weight of a thousandth part of a grain is marked by a sensible deflection of the beam. The introduction of these scales has wrought a revolution in the transaction of various business, and their accuracy is such that a uniformity in weights has been established all over the country. thus making them a national, legalized standard. Nor are they confined to the United States; they have found their way to almost every part of the civilized world, and are adapted to the standards of all countries, so that it may be said all nations, if not "weighed in these balances," at least weigh by them. They are adapted to every branch of business, and so great is the facility for weighing that measure has given place to weight. Instead of the half bushel measure for wheat, corn, and other cereals, as formerly used, whereby only a small number of bushels could be measured in a day, now, by the apparatus connected with the platform scales, thousands of bushels are weighed in a single hour. Railroad cars, loaded with live stock, coal, iron ore, and other heavy freights, are weighed by platform scales constructed under the tracks; and canal boats, freighted with hundreds of tons, are weighed with dispatch and accuracy. At the company's warehouse in New York may be found every variety and style of platform scales required in business transactions; also, weighing beams, gold balances for banks, brokers, jewelers, druggists, confectioners' scales, letter balances, and every descriptions of weighing apparatus.

UNITS OF POWER.

An active man in the prime of life can raise 100 pounds one foot per second, working 10 hours per day; a horse can raise 550 pounds in the same space of time. These are units of horse and man-powers.

One gallon of water converted into steam will raise 5½ gallons of water at 50° up to 212°, which is the sensible heat of the steam; there are, therefore, 944 degrees of latent heat in the steam.

SALT.

In America we have springs of salt water; in Cheshire, England, there are beds of red salt, 30 feet thick; in Poland there are salt mines extending for several miles in caverns, at a depth of 600 feet beneath the surface; at Cordova, in Spain, there is a mountain of salt 300 feet high; and in Peru there are salt mines 10,000 feet above the level of the sea.

TIN.

There are few of the metals possessed of the same interesting relations as the one we have now before us. The archæology of tin is more than usually attractive, and in the very dawn of history it is mentioned by the great Hebrew lawgiver as one of the metals to be purified by fire. The early inhabitants of Etruria and Central Italy were skilled in the applications of tin; the nations of the Levant were likewise accustomed to its use; but the most interesting point to us in the history of this metal resides in the memorable traffic which the Tyrian mariners pursued with the natives of the British Islands. Perhaps the whole catalogue of Phœnician commerce, so eloquently denounced by the prophet Ezekiel, could yield no article of superior value to this Cornish metal; indeed, it must have been more valuable to them than the cedars of Lebanon or the gold of Ophir. There was at that period an enormous consumption of bronze, by contemporary nations, in all their instruments of art and war; and tin—a metal of rare occurrence and limited distribution—is the most essential constituent of bronze, as we learn from Pliny. If we recollect, too, that the Phœnicians possessed a monopoly of this commerce, we shall then be able to conceive the inestimable value to its discoverers of this prolific tin country. So fully, indeed, was this importance recognized, that those astute merchantmen anxiously concealed from their rivals and contemporaries the geographical situation of these "tin islands." But the secret at length transpired. Publius, a Roman proconsul in Spain, after several unsuccessful efforts, opened to his countrymen the treasures of this undiscovered Dorado; and all through the long period of history which has since elapsed, Cornwall has continued to furnish an inexhaustible supply of the metal. The principal localities of tin are Cornwall, Bohemia, and Saxony, in Europe; Malacca, Pegu, and Banca, in Asia. Cornwall, notwithstanding its prodigious and long-continued drain, is still the most prolific tin district in the world. It has been calculated by Mr. Porter and others that Cornwall yields annually upwards of 50,000 tons of the metal, the value of which varies from £400,000 to £500,000.

CLASSIFICATION OF LEATHER SKINS.

The stoutest leather is made from ox-hides. Buff leather was formerly made from the hide of the buffalo, but it is now furnished by the cow-hide. Calf-skin supplies the great demand for the upper part of boots and shoes. Sheep-skins form a thin, cheap leather; lamb skins are used for gloves; goat and kid-skins form a light leather of fine quality; deer skins are usually shamoyed, or dressed in oil; horse-hide is prepared for harness work, &c.; and this, with seal skin, is also used for making enameled leather; dog-skin makes a thin tough leather, but most of the gloves sold as dog-skin are made of lamb-skin. Hog-skin makes a thin, porous leather, and is used for covering the seats of saddles.

In making shamoyed leather, of which washing-leather is a cheap example, the skins of deer, goats, and sheep are impregnated with oil instead of the other ingredients mentioned above. After a certain preparation the skins are beaten for many hours with heavy wooden machines, and cod oil is forced into the pores. Sheep skins, when simply tanned, are employed for inferior book-binding, and for various other purposes for which a cheap leather is required. The mock or imitation morocco, and most of the other colored and dyed leathers used for

women's and children's shoes, carriage linings, and the covering of stools, chairs, sofas, writing tables, &c., are also made of sheep-skin. Lamb-skins are mostly dressed white or colored for gloves.

Japanned leather of various kinds is used in coach-making, harness-making, and for various other purposes. Patent leather is covered with a coat of elastic japan, which gives a surface like polished glass, impermeable to water; and hides prepared in a more perfectly elastic mode of japanning, which will permit folding without cracking the surface, are called enameled leather; such leather has the japan annealed, something in the same manner as glass; the hides are laid between blankets, and subjected to the heat of an oven at a particular temperature during several hours, until finished properly.

In making Russia leather the skins are first freed from the hair or fleece by steeping them in an ash-lye, then rinsed, fulled, fermented, and cleaned. They are then soaked for forty-eight hours in a bath composed of water mixed with a paste of rye flour. The skins, when taken out of the bath, are left in tubs for fifteen days, then washed, and immersed in a boiler containing a hot decoction of willow bark, in which they are handled and pressed for half an hour. This manipulation is repeated twice a day for a week, after which the tanning infusion is renewed, and the process is repeated on the same skins for another week, after which they are exposed to the air to dry, and are then dyed and curried.

Morocco is the skin of a goat, or some other animal resembling it, called menon, and common in the Levant. It is dressed with sumac or galls, and colored with any color, and is much used in upholstery, book-binding, for ladies' shoes, &c. But most of the morocco to be obtained in this country is prepared here from sheep-skins. The name is derived from the kingdom of Morocco, whence it is supposed the manner of preparing this leather was first borrowed. Morocco is, however, brought from the Levant, Barbary, Spain, Flanders, and Russia—red, black, yellow, blue, &c. The process has been latterly greatly simplified, and the brilliancy and durability of the Turkey red successfully imitated. The peculiar ribbed appearance of morocco is given by means of a ball of box-wood, on which is a number of narrow ridges. Sheep-skin morocco is prepared from split skins, a peculiar arrangement of machine being employed for this purpose. Instead of stretching the skin on a drum, it is passed between two rollers, the lower one of gun-metal and solid, and the upper one of gun-metal rings; while between the two rollers, and nearly in contact, is the edge of the sharp knife, which is moved by a crank. When a skin is introduced between the two rollers it is dragged through against the knife edge and divided, the solid lower roller supporting the membrane, while the upper one, being capable of moving through a small space by means of its rings, adjusts itself to inequalities in the membrane; where this is thin the ring becomes depressed, and where it is thick they rise up, so that no part escapes the action of the knife. The divided skins are not sewed up into bags, as from their thinness the can be tanned quickly.

TEMPERATURE.

In man the temperature of the blood is 98°, in sheep, 102°, in ducks, 107°. During the chills of ague the heat of man's blood falls to 96° and 94°, while at the height of fever it rises to 102°, and even to 105°.

THE IRON TRADE.

The London *Times* says that the number of furnaces in full work in 1859, in the northeastern iron district, comprising Northumberland, Durham, Cleveland, was sixty eight, or ten more than the average for 1858. The total production of last year was 620,000 tons, of which 46,934 tons were exported and 524,066 tons were used in the district, shipped coastwise, and sent away by rail. The total quantity thus absorbed was 571,000 tons, leaving a surplus of 49,000 tons over the deliveries. The stock, December 31, 1858. was 25,000 tons, and the estimated stock at the close of 1859 was, therefore, 74,000 tons. Against these stocks of pig iron, large sales have, however, been made for future delivery. Four furnaces were completed and put in blast in the district in 1859 ; five more are now nearly ready, and six more have been begun.

The Philadelphia *North American* remarks, that it is to be regretted that there are not equally prompt and trustworthy returns of the American iron production at the termination of every year. It will be seen that the average production of the English furnaces was about 9,000 tons, which, although large, is less than that of the Lehigh anthracite furnaces. These produced, in four or five instances, about 10,000 tons to the furnace during 1859. The total production of anthracite iron in the Lehigh region, in 1859, was about 135,000 tons, and in the Schuylkill about 80,000 tons, in both cases a considerable advance upon last year. In the circle of Philadelphia business, it is estimated that the production for the past year was probably 250,000 tons of pig iron, but for more distant places it is feared that the return will present a far less encouraging statement.

THE MOTION OF A CANNON BALL.

The *Scientific American* says the latitude of New York city is 40° 42′ 40″ ; and as the degrees of longitude diminish in length from the equator to the poles, the length of a degree of longitude here is about 52¼ miles, or more nearly, say 277,250 feet. As the earth turns on its axis once in 24 hours it carries everything on its surface, from west to east, to the distance of one degree in four minutes ; so that the city of New York, with everything else in this latitude, is constantly running round towards the east at the rate of about 13 miles a minute, or, more accurately, 1,155 feet in a second. Now, this is just about the velocity of an ordinary cannon ball. Hence, if a cannon in this latitude is fired when pointing exactly west at a fort, the ball is simply *stopped* in its eastern motion—the cannon *runs away from it*, and the fort *comes up against the ball* with a crash! This refers merely to the motion of the ball in relation to the diurnal rotation of the earth ; if we attempted to ascertain the absolute motion of the ball, considering the motion of the earth in its revolution around the sun, and the motion of the sun among the stars, we should find the problem not only very complicated, but absolutely insoluble in the present state of astronomical science ; indeed, it is impossible to conceive that we ever can have such knowledge of the universe as to enable us to determine the absolute motion of the sun in space.

VAPOR.

In a vacuum water boils at 88°. At the boiling point the vapor of water has the same density as the atmosphere ; it is the same with all other vapors produced by boiling liquids.

SPINDLES IN ENGLAND AND COTTON SUPPLY.

The following interesting paper by Mr. HENRY ASHWORTH, of Bolton, England, is taken from the Manchester *Examiner and Times* of the 29th February:

The alarm which has recently been raised on the subject of an adequate supply of cotton, appears to have roused much attention. The discussion in the House of Lords, as well as in the Commons, and the numerous articles which have followed in the public journals, indicate a degree of interest which would appear to call for the disclosure of the following important facts:—

Last year the consumption of raw cotton by the manufacturers of Great Britain was 2,296,700 bales, or 973,800,800 pounds.

In 1849, now ten years ago, it was 1,590,400 bales, or 629,798,400 pounds.

The increase in the ten years having been 55 per cent, or 706,300 bales, or 344,002,400 pounds.

The above progress, when explained in the language of practical life, represents an increase of consumption, in the above period, at the rate of 70,000 bales a year, or 1,350 bales per week.

In the next place, let us have our attention directed to the amount of increase which has been going on in our spindles.

In the year 1850, according to a Parliamentary return, there were in Great Britain (inclusive of Ireland) 20,858,062 spindles employed upon cotton, and, having reference to the annual consumption at that period of 629,798,400 pounds, it amounts to 300 pounds per spindle.

Therefore, if we apply these data to the cotton consumption of last year, viz., 973,800,800 pounds. we shall find that the manufacturing power we now possess is that of 32,460,026 spindles, showing an increase in ten years of 11,601,964, or an average rate of progress of 20,718 spindles per week, and requiring a weekly supply of 1,350 bales of cotton. Meanwhile, that is to say during the ten years in question, the principal increase of growth has been in the United States, and, large as it may appear, it has barely kept pace with the increase of demand, and the supplies held in the market have been gradually diminishing, and often reduced to a very scanty amount.

FORECAST OF THE FUTURE OF SPINDLES AND COTTON.

The machinists of this country have, perhaps, never before found themselves so fully employed, and, according to information derived from them, there is now going on a greatly accelerated increase in the erection of mills, and in the extent of spinning machinery in course of preparation, not alone in Great Britain, but also in all parts of Europe as well as in the United States.

The new machinery now constructing for British account has been put down at 45,000 spindles per week, which is more than a two-fold rate of increase, as compared with the period above referred to. These will require to be supplied with their 30 pounds of cotton per annum for each spindle; and at no distant day the increase of consumption for the new spindles alone will amount to no less than 160,000 bales per year, against a rate of 70,000 bales in the last ten years, or a future supply of 3,000 bales per week, as against the former rate of 1,350 bales. Let it also be borne in mind that the cotton manufacturers of Great Britain constitute only one-half the consumption under our immediate notice, while the other half is carried on in the various manufacturing districts of Europe and in the United States. Now, should the like rapidity of progress in manufacture be going on in these other countries, it must be obvious that an extension of growth will very soon be required of more than 300,000 bales a year.

It may be well for us to consider the practicability of raising, with the requisite speed, so large an addition of our supplies, in order to meet the growing demand; let us, therefore, as in the former case, have reference to what has already been done in the increase of cotton culture during the past ten years, and select for reference as to capability the United States, a country from which our manufacturers are deriving nearly four-fifths of their present supplies, and in which

the capabilities of extension are known to be so ample, and the energetic character of the planters so reliable.

The average product of the crop of the United States for the years 1849–50 to 1853–54 was 2,731,830 bales. The average product of the five years, from 1854–55 to 1858–59, was 3,256,029 bales.

Taking the extremes between the first and last of the above years, the difference will be 1,754,775 bales, or a rate of progress of 175,000 bales per annum.

The fluctuations occurring from year to year are deserving of notice; they indicate the uncertainty which must ever impend over the future, though they do not materially obstruct the onward progress of success.

It will be marked that there is not anything decisive to be gathered from the grouping of these figures, representing crops; the averages do not indicate certainty of production, and yet, amidst all the variations, there are marks of elasticity and encouragement in the prospects they hold out.

STATISTICS OF AGRICULTURE, &c.

AGRICULTURE OF OHIO.

The annual report of the Ohio Commissioner of Statistics remarks:—We have now complete returns of all agricultural crops, for the State of Ohio, in three years of the last twenty; and the crops of wheat and corn in eleven years. These are enough to determine with sufficient accuracy the general aggregate of arable lands and the products for twenty years, the averages produced, and the value of agricultural labor. These facts are of the highest interest, and will stand in favorable contrast, as I have before remarked, with similar exhibits for any other country, even the most highly cultivated.

The following table presents a view of all the grain crops, with those of hay and potatoes, for the years 1839, 1849, and 1858:—

	1839.	1849.	1858.
Corn.....bushels	33,668,144	59 078,695	50,863,502
Wheat.....	16,571,661	14,487,351	16,655,483
Oats.....	14,393,103	13,472,742	8,026,251
Barley.....	212,440	354,358	2,103,191
Rye.....	814,205	425,918	874,513
Potatoes.....	5,805,021	5,245,760	5,000,000
Hay.....tons	1,022,037	1,443,142	1,806,441
Buckwheat.....bushels	633,139	638,060	791,921
Aggregate of above exclusive of hay	72,097,718	98,902,884	84,814,941

It will be seen that the crop of 1858 was below that of 1849, and only about 17 per cent advance on that of 1839. The value of the crop of 1858 was much greater than either, and probably full double that of 1839. In this entire period of twenty years, the prices of products had been gradually but regularly rising, especially so of corn, the great staple of the State.

The above three years, however, are very far from being correct tests of an average crop, for it happened that each of these years was relatively a bad year for crops. Let us then take the years 1855 and 1857, which we have for wheat and corn, and make a *proportional* (as between 1849 and 1858) for the minor crops. We have then this result:—

	1855.	1857.
Corn.....bush.	87,587,484	82,555,186
Wheat.....	19,569,320	25,897,614
Oats.....	20,000,000	25,000,000
Barley. Rye, and Buckwheat.....	2,600,000	3,000,000
Potatoes.....	5,000,000	5,500,000
Aggregate.....	134,756,754	141,452,800

We see here a wide difference. The crops of 1855 were, up to that time, the largest ever grown in the State; but those of 1857 exceeded those of 1855 by at least 7,000,000 bushels.

Taking the crop 1849 as a *unit* of measure, we find that the crop of 1855 was an advance of 40 per cent on that, and the one of 1857 an advance of 50 per cent..

As the crop of 1857 was very good, and the crop of 1858 a very bad one, and they are the most recent we have, we shall obtain a very fair view of the average production of grain in this State by taking the average of these two. Thus:—

Aggregate grain crop of 1857.....bushels	141,452,800
" " " 1858.....	84,314,841
Sum of the two years.....	225,767,741

Average production of the State, 112,883,870 bushels. Taking each separate article, this average would be made up as follows, viz.:—

Corn.....bush.	70,000,000	Other grains.....bush.	3,000,000
Wheat.....	20,000,000	Potatoes.....	5,000,000
Oats.....	16,000,000		

This is slightly over the amount, and occurs from the absence of fractions. It is certain this State has in several years produced a greater aggregate. Nature, however, never produces *averages*. If one crop is an average, another is much greater or less. The actual results present great departures from the abstract average. This mathematical ratio, however, is valuable, for, like a straight line, it presents a fair standard of comparison. As a general principle, the *aggregate* results of crops *alternate* with alternate years. It is very rare that two consecutive years, all crops are either excessive or deficient. It may be regarded as a law of experience, that if the general crops are deficient in one year, it will be made up in the next, and the converse. A more certain mode probably of determining the real advance of a State in agricultural products will be to ascertain the increase of arable land, and the degree of cultivation. In a series of years, the results must correspond very nearly to the number of arable acres. As there is a mathematical average for a given number of acres in a given series of years, so if this number of acres be increased, the general averages must be increased.

AGRICULTURE IN HAYTI.

President Geffrard, with the advice of the Council of State, has published a decree establishing farm schools in all the arrondissements of the republic. Each school is to have fifty pupils, who are to be supported by the State.

PRODUCTS OF WISCONSIN.

ANNUAL AGRICULTURAL, FARM, MANUFACTURING, AND MINERAL STATISTICS OF THE STAT OF WISCONSIN, ETC.

Articles.	Acres.	Quantity.	Value.
Apples	.....	45,069 bush.	$50,285
Barley	29,404	370,050 "	182,640
Beans and peas	3,521	49,540 "	42,971
Buckwheat	16,729	146,336 "	76,160
Corn	211,324	5,986,654 "	2,544,681
Oats	228,578	4,743,981 "	1,594,627
Potatoes	32,630	2,900,499 "	893,037
Rye	22,014	267,014 "	158,531
Wheat	603,811	7,029,273 "	5,972,701
Hay	340,864	522,653 tons	1,842,917
Pig iron	.....	2,637 "	4,718
Clover seed	.....	167,033 lbs.	18,741
Flax	.....	8,200 "	695
Grapes	.....	10,948 "	1,785
Grass seed	.....	1,177,993 "	56,411
Hemp	.....	194 "	56
Butter	.....	6,694,255 "	853,453
Cheese	.....	580,104 "	55,999
Wool	.....	582,538 "	190,578
Sugar	.....	802,491 "	86,459
Lead, smelted	.....	4,129,080 "	.....
" raised	.....	2,823,620 "	6,401,434
Cattle and calves on hand	.....	392,114 No.	4,746,901
" " slaughtered	.....	25,449 "	502,652
Hogs on hand	.....	252,599 "	603,257
" slaughtered	.....	160,136 "	1,458,926
Horses and mules	.....	82,524 "	4,671,212
Sheep and lambs on hand	.....	354,657 "	480,202
" " slaughtered	.....	25,751 "	55,400
Boots and shoes	.....	148,444 pairs	397,563
Cotton goods	.....	16,208 yards	1,593
Paper	.....	9,587 reams	11,676
Whisky	.....	276,549 galls.	80,010
Wine	.....	2,611 "	4,598
Total	1,488,875	89,040,112	$33,986,781

INDIGO CULTURE.

The indigo insurrection in Bengal, says the Boston *Courier*, is an affair of some commercial consequence. Whatever may be the result of it, the production and manufacture of that staple article of trade will at least receive a temporary and serious check. We, as well as England, now derive our principal supply of Indigo from Bengal, from whence the annual export reaches, probably, the value of fifteen millions of dollars. Half a century ago, or more, this continent supplied the world with indigo, it having been extensively cultivated in the Central American States and Venezuela, and the Antilles, where its produce was for a long time greatly superior to that of India. The Spanish process of manufacture, which was employed on this continent, was introduced into Bengal somewhere about the beginning of the present century, and the produce of America was soon superceded by that of the more genial soil of India.

The present disturbance in Bengal, which is called an insurrection, is in fact a "strike" of the peasantry, or the ryots, as the native farmers are called.

Practically, the system upon which these ryots are compelled to labor, is a system of slavery. The tenure by which the lands are held, and the entire control over the culture which is exercised by the English planters, constitute a system which, in everything but the name, is slavery. The production of Indigo is disliked by the natives, for several good reasons. The crop is a delicate and precarious one, both as to quantity and quality, and requires great skill in the management It demands minute attention and excessive exertion, and is, moreover, very uncertain in its results—the difference in the return of the drug, from the same quantity of plant, being in different years excessive. The peasantry have no other than a nominal, rental right to the soil which they cultivate; and they are kept poor enough to submit to almost any terms of culture which the actual landowners, or planters and speculators who act under them, are induced *by* their own interests to impose. To overcome the prejudice of the natives against the culture of indigo, the English planters, or indigo factors, have for half a century resorted to a custom of making advances to the ryots, and thereby tempting them to engage in the production. The indigo factories in Bengal are numerous, and some of them are conducted upon a very large scale. The factors supply the seed of the indigo plant, and furnish the money necessary for the cultivation to the farmers, who bind themselves to deliver to the factor by whom they are thus supplied, the whole number of plants they produce, at a stipulated price, which of course is low enough. For every rupee, we believe, the ryot has to furnish four to eight bundles of indigo. This bargain is involuntary on the part of the ryots, and unjustly throws upon them the whole risk; for in case of a failure of a crop, from a bad season or other accidental cause, the advance debt runs into the following year, when the farmers have to cultivate without any money at all. This unequal contract, as will be seen, may become exceedingly oppressive to the farmers, who, in relation to the factors, are forced into the position of debtors, and compelled to deal year after year exclusively with the same party, and under circumstances which invite injustice and oppression.

Within a few years the price of rice has advanced, while the Bengal peasants have been compelled to continue the cultivation of indigo at low rates. Their lands and labor have been employed in paying off old debts at low prices of indigo plants, while high profits might have been gained by the production of rice. At length the patience of the poor ryots has given way, and oppression and the sting of poverty have goaded them to open rebellion. They have refused to fulfill their engagements with the planters, and have struck work and assembled in bands, to compel others to abstain from the cultivation of indigo altogether. In pursuance of this determination, some outbreaks have been committed, in resisting which the factors had killed several of the insurgents. It was necessary that the seed should be sown before May, to insure a crop. Unless the ryots could be compelled or induced to sow, or to allow the seed to be sown, it was supposed that a million pounds sterling would be lost, and advances of a million more irretrievably sacrificed. In the emergency, the planters applied to the government of India for aid, and a very stringent, but temporary, law had been passed, for enforcing the fulfillment of the indigo contracts. This law provides that any man who has received cash on promise to sow indigo, and does not sow, may be fined five times the amount and imprisoned. It also provides for the punishment, by imprisonment, of such as shall instigate breaches of con-

tract, or spoil growing crops. Large bodies of military police and irregular cavalry have been ordered into the disturbed districts to support this law. This was the state of the war at the last accounts.

The difficulties attending the production of indigo—some of which are illustrated by this strike of the cultivators in Bengal—are so great as to threaten a general diminution in the use of the article. Indeed, there seems to have been no increase in the quantity produced for the last thirty or forty years. There has been a material discontinuance of blue in articles of dress, and a consequent decrease in the consumption of indigo. It is still produced in Central and South America, but in diminished quantities. From San Salvador, (where the plant grows in great perfection,) Honduras, Nicaragua, and Venezuela, it is yet, however, an important article of export. San Salvador, fifty years ago, threw 1,800,000 lbs. into trade. Not half that quantity, probably, is now produced there. Twenty years ago the value of indigo produced in Venezuela was about $600,000. Ten years ago the production had diminished to about one-third of that value. It is produced in greater or less quantities in St. Domingo, (where, at one time, there were no less than three thousand indigo plantations,) in the Philippine Islands, in China, in Mauritius, in French India, in Egypt, in Morocco, &c.; but nowhere so extensively as in Bengal, where it constitutes the chief item of export, its value being equal to nearly one-half of the total exports to Europe from the province. The number of indigo factories in Bengal is not far from five hundred.

RULE FOR PREDICTING THE WEATHER.

Galignani's Messenger contains the following:—About a year ago we mentioned, without attaching much credit to it, an empirical rule, by which the weather might be predicted with tolerable certainty during the last 24 or 25 days of a month, from that which prevailed during the former ones. This rule is now, however, again brought forward, with such additional arguments in its favor as to induce us to return to the subject. It appears that it was the late Marshal Bugeaud who discovered it, in an old Spanish manuscript; he was struck with the great number of observations from which it had been deduced, extending over more than fifty years, and resolved to verify it himself. The result of his observations was so satisfactory, that he soon got into the habit, in Algeria, of consulting the rule on all occasions when some important military or agricultural operation was in contemplation. The rule is as follows:—"Eleven times out of twelve, the weather will, during the whole lunation, be the same as that which occurred on the fifth day of that moon, if on the sixth the weather was the same as on the fifth. And, nine times out of twelve, the weather of the fourth day will last throughout the moon, if the sixth turns out to be like the fourth." The marshall used to add six hours to the sixth day before pronouncing on the weather, in order to make up for the daily retardation of the moon between two passages across the meridian. It is clear that this rule may not be always applicable, there being nothing to prevent the sixth day from being quite different from the fourth and fifth. M. de Coninck, of Havre, has just published his observations, continued for ten months, and which completely confirm the rule.

STATISTICS OF POPULATION, &c.

LONGEVITY IN ENGLAND.

We find in an English publication some interesting statistics in regard to the duration of human life in England. The article has evidently been prepared with great care from official documents, and is no doubt as correct in its conclusions as is possible to be upon a subject so intricate and mysterious. The writer commences with the following remarks:—"A human being born with a sound constitution is calculated to live seventy years or upward under favorable circumstances; but, as we well know, all of us are surrounded more or less by circumstances unfavorable to life, by which, practically, our term of years is liable to be greatly shortened."

Existence, as to duration, is proverbially the most uncertain of all things, and this, because from its ignorance, incautiousness. and accidents, life is constantly coming into collision with the conditions calculated to destroy it. The conditions unfavorable to life come into operation before the human being has seen the light. They continue in operation throughout the whole of its appointed period; so that, out of any large number born, a certain proportion die in the first year, a certain proportion in the second, the third, and so on until all are gone—only a certain comparatively small number attaining the full age which nature promises to sound life maintained in favorable circumstances.

It appears that during the eighteen years from 1813 to 1830, there were registered as burried in England and Wales 3,938,496 persons, of whom 1,942,301 were females.

Of the whole number, 778,083 died before reaching the age of one year, while 266,443 died at that age, and 320,610 whose age was over one and not above five, making a total of deaths at the age of five years and under of 1,354,000, or a little over a third of the whole number. There appears to have been a greater fatality between the ages of twenty and thirty than between those of thirty and forty or forty and fifty.

The number that died between the ages of ninety and a hundred was 35,780, of whom 24,183, or over two-thirds, were females; 1.899 persons, or one in each twenty-one hundred that died, reached the age of one hundred and upward. The oldest death was a male of one hundred and twenty-four years. Two males and one female each reached the age of one hundred and twenty; one male, one hundred and nineteen; one male, one hundred and eighteen; one female, one hundred and seventeen; two females, one hundred and fourteen; one male and one female, one hundred and thirteen; one male and one female, one hundred and twelve; eighteen persons reached the age of one hundred and ten; eighteen, one hundred and nine; twenty eight, one hundred and eight; thirty-four, one hundred and seven; forty-six, one hundred and six; one hundred and one, one hundred and five; one hundred and thirty-one, one hundred and four; one hundred and ninety-seven, one hundred and three; two hundred and forty, one hundred and two; three hundred and fifty-eight, one hundred and one; and seven hundred and seven, one hundred. The last mentioned age was reached by two hundred and thirty nine males and four hundred and eighty-six females—nearly two to one in favor of the latter.

GERMAN POPULATION.

The German element of the federal population is approximated in some tables given by the New York *Herald*, based upon the official reports of numbers annually arrived, and estimating their increase at 1½ per cent per annum up to the date of the census of 1850. The results are as in the following tables. The result shows what is called the German "element" as being 30 per cent of the whole white population. This is assuming that all the Germans have intermarried, and that their progeny retains its German affinities. This is, however, far from being the case. The number of persons in the United States at the date of the census, born in Germany, was 1,242,082, or rather less than 30 per cent of those given above as "Germans." Inasmuch as that the increase of most branches of the European families is about in the same ratio, the German element must remain in the proportion of their arrivals, which is about one-half the number of those who arrived from the United Kingdom. The population of Germans to those who were native in 1820, and the arrivals from other countries is only one-eleventh. The increase of Germans and natives of other nations cannot be defined unless the intermarriages are known. The tables are, nevertheless, useful.

SYNOPTIC TABLE, SHOWING THE PERCENTAGE AND THE NUMBER OF THE GERMAN POPULATION IN THE UNITED STATES IN 1850.

No.	States.	Total population.	Percentage of Germans.	Total No. of Germans.
1....	Maine	583,169	19	110,770
2....	New Hampshire	317,976	10	31,797
3....	Vermont	314,120	9	28,269
4....	Massachusetts	994,514	22	218,900
5....	Rhode Island	147,545	11	16,280
6....	Connecticut	370,792	14	51,940
7....	New York	3,097,394	17	526,490
8....	New Jersey	489,555	15	73,870
9....	Pennsylvania	2,311,786	49	1,132,773
10....	Delaware	91,532	13	11,899
11....	Maryland	583,034	28	163,244
12....	Virginia	1,421,661	24	199.024
13 ...	North Carolina	869,039	9	78,210
14....	South Carolina	668,507	9	60,165
15....	Georgia	906,185	10	90,652
16....	Florida	87,445	4	3,496
17....	Alabama	771,623	13	100,308
18....	Louisiana	517,762	13	67,201
19....	Mississippi	606,526	10	60,652
20....	Kentucky	982,405	23	225,952
21....	Tennessee	1,002,717	30	300,810
22....	Missouri	682,044	43	300,080
23....	Arkansas	209,897	37	77,700
24....	Texas	212,592	40	84,036
25....	Ohio	1,980.329	47	930,741
26....	Illinois	851,470	42	342,468
27....	Michigan	397,654	42	166,992
28....	Wisconsin	305,391	40	122,160
29....	Indiana	988,416	40	395,360
30...	Iowa	192,214	44	84,568
31....	California	92,597	27	24,975
District of Columbia		51,687	16	8,272
Total		23,191,876		5,688,620

STATISTICAL TABLE, SHOWING THE PERCENTAGE OF THE GERMAN POPULATION IN DIFFERENT POLITICAL RELATIONS.

	Year 1850.	German population.	Per cent of Germ'ns.
Total population of the United States.....	23,191,876	5,688,620	24
Total white population of the United States...	19,553,068	5,688,620	30
Total federal representation.....	21,767,673	5,478,610	26
Total population in the nine Northern States..	8,626,851	2,190,589	25½
Total population in the twelve Slave States....	8,508,436	1,360,679	15
Total population nine Western States.....	5,820,007	2,504,105	43

STATISTICAL TABLE, SHOWING THE GERMAN AND IRISH IMMIGRATION IN THE DECENNIUM 1850 TO 1860.

	Germans.	Irish.		Germans.	Irish.
1850.....	45,738	117,038	1856.....	56,117	43,986
1851.....	79,540	163,256	1857.....	86,859	57,106
1852.....	118,674	118,611	1858.....	31,874	25,097
1853.....	119,498	113,164	1859.....	27,858	34,846
1854.....	179,648	82,302			
1855.....	54,038	43,043	Total.....	799,844	798,459

ESTIMATE OF THE NUMBER OF GERMAN POPULATION IN THE YEAR 1860.

German population in 1850.....	5,688,620
Natural increase by the surplus of births, 1½ per cent per annum*....	853,290
Increase by immigration since 1850.....	799,844
Increase of the immigration in ten years, at 1½ per cent per annum†..	119,970
Total of Germans in 1860.....	7,461,724

ESTIMATE OF THE TOTAL POPULATION OF THE UNITED STATES IN 1860.

Total population 1850.....	23,191,876
Natural increase by the surplus of births, 1½ per cent per annum..	3,378,681
Increase by immigration during the last decennium.....	2,456,540
Increase of immigration at 1½ per cent per annum.....	368,480
Probable total population in 1860.....	29,395,577

The German population amounts in 1860 to nearly twenty-five per cent of the total population of the United States, and to 27 per cent of the total representative population.

TABLE SHOWING THE INCREASE OF POPULATION IN SEVERAL STATES AFTER THE YEAR OF THE LAST CENSUS OF 1850, TO SERVE FOR THE APPROXIMATIVE COMPUTATION OF THE ESTIMATES FOR 1860.

States.	Pop. in 1850.	Population in		Increase per year per cent.
New York.....	3,097,394	1855....	3,446,212	2½
Massachusetts.....	994,514	1855....	1,132,369	2 4–5
Alabama	771,623	1855....	841,704	1 4–5
Florida.....	87,110	1855....	110,823	5½
Georgia	906,185	1859....	1,014,418	1½
Louisiana.....	517,762	1859....	646,971	2 4–5
Illinois.....	851,470	1855....	1,306,576	10 1–5
Michigan.....	397,654	1854....	511,672	8
Arkansas	209,897	1858....	331,213	7
Wisconsin.....	395,391	1855....	552,451	8
Iowa.....	192,214	1859....	633,549	23½
California.....	92,597	1856....	507,067	75‡

* The increase by the surplus of births is estimated at 15 per cent in ten years, according to censuses in Germany, which show in Prussia, Saxony, Bavaria, and Wurtemberg an increase from 15 to 17½ per cent in a decennium.

† The increase of immigration by the surplus of births is estimated twice as high as the regular increase of settled population, because the immigrants are, in the great average, men and women in the prime of age.

‡ The percentage given here is not the progressive percentage, but only the percentage of the population of 1850.

POPULATION OF SOME OF THE PRINCIPAL CITIES AND PERCENTAGE OF THEIR GERMAN POPULATION.

Cities.	According to census of 1850. Total pop.	Percentage of Germans.	German pop.	Estimate for 1860. Total pop.	Percentage of Germans.	German pop.
Albany	50,763	18	10,137	.....	22	.....
Baltimore	169,054	31	52,390	.....	33	.....
Boston	136,881	20	27,360	.....	24	.....
Brooklyn	96,808	21	20,328	156,200	26	40,612
Buffalo	42,262	30	12,660	.....	36	.....
Charleston	42,980	9	3,861	.....	11	.....
Chicago	29,963	47	14,100	.....	52	.....
Cincinnati	115,436	31	35,770	182,000	42	76,440
Louisville	43,190	32	13,792	.....	37	.....
Milwaukee	20,515	51	10,200	.....	56	.....
Newark	38,894	21	8,148	.....	25	.....
New Haven	20,345	17	3,400	.....	22	.....
New Orleans	116,375	10	11,637	.....	12	.....
New York	515,547	17	87,550	774,873	21	162,540
Philadelphia	498,762	27	110,160	650,000	31	201,500
Pittsburg	46,601	36	16,776	.....	42	.....
Providence	41,613	19	8,569	.....	20	.....
St. Louis	77,860	51	39,329	172,400	53	91,372
Washington	40,001	16	6,400	.....	17	.....
Williamsburg	30,780	27	8,100	50,280	32	16,064

THE FOLLOWING TABLE SHOWS THE INCREASE OF THE POPULATION OF THE CITY OF NEW YORK.

	Inhabitants.	Increase per annum.	
1790	33,131	....	
1800	60,489	8 29	
1810	96,373	5.93	Average of annual increase 5.69 per cent.
1820	123,706	2.88	
1830	197,112	5.93	
1840	312,710	5.86	
1850	515,547	6.49	
1855	629,904	4.43	

In our estimate we calculated the increase only to 5 per cent per annum—0.69 per cent less than the average of 60 years.

The number of the population of Philadelphia was increased in an extraordinary manner by the consolidation of the city and county into one great city, June, 1854. By the same act the percentage of German population was considerably augmented by the incorporation of Germantown, Frankfort, and other boroughs.

ROXBURY AND ITS POPULATION.

The following table shows the decennial increase of population in Roxbury since 1830:—

1830.	1840.	1850.	1860.
5,247	9,089	18,316	36,000

This includes the population of West Roxbury. The table shows a population doubling every ten years, and increasing 30,000 in thirty years, against an increase of only 3,021 in the preceding forty years.

POPULATION AND AREA OF THE STATES OF MEXICO.

The anti-commercial turbulance of our neighbors continues in a manner that must bring regret to the minds of all reasonable people, and prevent much extension of the natural resources. The following are the States of Mexico, with the population of each, and the area in English square miles :—

	Area.	Populat'n.		Area.	Populat'n.
Chiapas	18,697	144,070	San Louis Potosi	29,486	368,120
Chihuahua	100,250	146,600	Sonora	123,466	139,374
Coahuila	56,570	75,340	Sinaloa	25,721	160,000
Durango	48,489	162,218	Tabasco	15,609	63,580
Guanajuato	12,618	713,583	Tamaulipas	30,334	100,064
Guerrero	32,002	270,000	Vera Cruz	26,595	264,725
Jalisco	48,596	774,461	Yucatan	52,847	680.948
Mexico	19,535	973,697	Zacatecas	30,507	356.024
Michoacan	22,993	491,679	Federal District	89	200,000
Nueva Leon	16,687	138,361	Tlaxacala	1,948	80,071
Oajaca	31,822	525,101	Colima	3,019	61,243
Puebla	12,042	580,000	Lower California	60,662	12,000
Queratarо	2,444	184,161			
Total				834,146	7,666,520

DURATION OF LIFE.

A cotemporary states that the average length of life in this country is diminishing at an alarming rate, it having sunk in the three principal cities as follows :—

	New York.	Philadelphia.	Boston.
1810	26	26	28
1844	20	22	21½
1860	15	20	20

POPULATION OF JAVA AND MADURA.

According to the official statistics received from the East, the population of Java and Madura amounts to 20,331 Europeans, 138,356 Chinese, 24,615 Arabians and other foreign Orientals, 11,405,596 free natives, and 5,260 native serfs, making together a total of 11,594,158. The increase of the year was 303,708, being something under 3 per cent. The number of native chieftains or princes is 106,105, and that of the native priests is stated to be 56,993. The population of the other Dutch possessions in the Eastern Archipelago is 5,477,540, making a grand total of more than 17,000,000 under Dutch laws and under the Dutch flag.

ENLARGEMENT OF PARIS.

On the morning of January 1st, 1860, the whole circumference of Paris stepped out a mile, and drew within its embrace three hundred thousand new inhabitants. Paris now contains a population of a million and a half. When completed, the new city will be thirty miles in circumference, with ninety-two gates. The old control wall is to be converted into a boulevard, and planted with trees, and will constitute the largest street in the world.

MERCANTILE MISCELLANIES.

A VOYAGE DOWN THE AMOOR.

RUSSIAN MERCANTILE HOSPITALITY.

Though the wine continued to flow, says a recent traveler, I really hoped that the dinner was over. I could not now see much room for its continuance, and I was sure there could not be much more room within the company. Finally, the Golovah rose, and the dinner ended, and with it, as I supposed, the drinking also; but I was mistaken. We adjourned to the coffee-room, where tea and coffee were both served; the tea really delicious, the purest herb of China. I drank very freely of it, for I hoped it would counteract the effects of the wine. As soon as politeness would seem to justify, we rose to depart. In the meantime, the dining-room had been cleared of every vestige of the dinner, tables and all, and was now occupied by groups in animated conversation.

As soon as we entered the apartment, servants, bearing trays loaded with glasses, foaming with champagne, approached, and the Golovah pressed us to take the parting glass. This it was idle to refuse, so we drank, as we supposed, for the last time. Presently I noticed a pretty dense circle encompassing PEYTON, and in an instant he was seized by half a dozen stout, jolly merchants, and tossed up in the direction of the ceiling. Fortunately it was not a very low one, or else he must have gone through the roof. Down he came, however, into the hands of his tormentors, who sent him up again, if anything higher than ever, the most uproarious mirth and laughter prevailing. My companion was not a small man, or a light one, but he was no more than a feather in the hands of these portly Siberians.

This sport is called in Russian *podkeedovate*, or tossing up, and is considered a mark of great respect. Gen. MOURAVIEFF told me, after our return, that he had *podkeedovate* performed upon him in the same room.

During the performance I stood half-aghast, looking at the figure PEYTON was cutting, a man six feet high and well-proportioned, going up and down like a trap-ball, his coat tail flying sky-high and his face as red as a brick. I was all the time consoling myself that they had administered this extra touch of hospitality to PEYTON because they considered him the most worthy and the best able to stand it, and I said to BEETSOW, "I hope one tossing for the American nation will be considered honor enough." He replied, "Your turn will very likely come, too."

After a while PEYTON came down and staid down. Servants again came around, and we had to drink champagne. I had just emptied my glass and placed it on the waiter, when, without a moment's warning, I was seized and up I went. Being much lighter than PEYTON, and handled after him by these stout, and now very jovial and merry fellows, I have a distinct recollection of touching the ceiling. My coat-tail certainly did, and what I thought at first a piece of good fortune, now proved to be otherwise, for, having taken PEYTON'S gauge with regard to weight, they did not take into consideration my lightness, and I came near going through the top of the house. Up I went and down I came, only to go up again, until my friends were satisfied that if I was not drunk before, my head

would certainly swim now. However, I was able to stand when I came to my feet, which was more than I calculated upon when tossing between the floor and ceiling.

Of course, we had to all take another drink. By this time PEYTON and I were working our way towards the door, in order to evacuate this citadel of hospitality, and finally succeeded in reaching our sleigh, which was standing near the entrance of the house; we had, however, to partake of the stirrup cup after we were seated, and thus ended one of the most extraordinary, and, barring the overflow of wine, one of the most agreeable dinners I ever partook of.

EXCITEMENT THE STIMULUS OF BUSINESS.

It has been very truthfully said that one-half of mankind do not know how the other half live—they have no clear conception of the toil, the struggle, the sacrifices, and the continual pressure of anxiety which is necessary to draw the fleeting breath of human life for a few years. Nor is it best they should know the "heart ache and the thousand ills" produced by those very refinements which minister to their happiness and pride of life; the revelation could do no good aside from a transient sympathy and commiseration. No permanent or general solace of care can ever be found—and the sternness of fortune must be met in a philosophical spirit. The conditions of life are fixed not altogether from choice, or forethought, or skill, but by an extraneous power, that "shapes our ends, rough hew them as we may."

There is a numerous class of minds that live almost entirely upon excitements. In a calm dispassionate flow of life and business they are stupid and powerless, but stir up the placed sea until it surges with violence, and they are then ready for a mission—armed and equipped for the toil of life. Such minds are the martyrs of this age of enlightenment—the life they lead is a consuming one, and vitality is spent with a prodigality more than heroic. The requirements of business are making this method of living more imperative, and without it success is beyond a reach. Half a century since the rivalries now experienced in all departments of human industry were then unknown. A new order of mind and new energies are called into requisition. The business man of the last generation would hardly be recognized by the prevailing caste. Flesh and blood are capable of enduring many hardships, but the delicate nervous organization, its accompaniment, breaks down at length under the incessant tension. Disregarding the friendly premonitions of temporary illness, the exhausted mind holds on its work by the necessary and agreeable stimulus of fresh excitements, until a sudden reaction crushes its vigor, and then comes on the weakness, satiety, and sorrow of hopeless infirmity.

It is not without a shade of melancholy that we notice in almost every daily journal the record of a faltering in the ranks of business men. This successful merchant has impaired his health by overwork, which means too much nervous excitement, and he starts for Europe in the hope of building up his health on a broken foundation. Another professional man is aroused from his dream of ambition with the frightful conviction that phthysis has fastened its deadly grasp upon his vitals, and the grim images of weakness and decay henceforward fill his vision. There has been an alarming increase of disease within a few years, having its origin in the causes we have named, and the effect of it should be to

produce greater moderation. What if the profits are less? They can be continued longer and life made happier.

There is no necessity for this waste of life—it is a sheer delusion, the effect of a foolish ambition. Better accept the heritage of poverty or a moderate success than the infallible necessity of an early disease.

DISCONTENT.

How universal it is. We never knew one who would say "I am contented." Go where you will, among the rich and the poor, the man of competence, or the man who earns his bread by the daily sweat of his brow, and you hear the sound of murmuring and the voice of complaint. The other day we stood by a cooper, who was playing a merry tune with his adze around a cask. "Ah!" said he, "mine is a hard lot—forever trotting round like a dog, driving away at a hoop." "Heigho!" sighed our neighbor, the blacksmith, in one of the hot days, as he wiped the drops of perspiration from his brow, while his red hot iron glowed on the anvil; "this is life with a vengeance, melting and frying one's self over the fire." "Oh, that I were a carpenter!" ejaculated a shoemaker as he bent over his lap stone; "here I am, day after day, working my soul away in making soles for others, cooped up in this little seven by nine room." "I am sick of this out-door work," exclaims the carpenter, "broiling and sweating under the sun, or exposed to the inclemency of the weather—if I was only a tailor." "This is too bad," perpetually cries the tailor, "to be compelled to sit perched up here, plying my needle—would that mine was a more active life." "Last day of grace—the banks wont't discount—customers won't pay—what shall I do!" grumbles the merchant; "I had rather be a dray-horse—a dog—anything!" "Happy fellows!" groans the lawyer, as he scratches his head over some perplexing case, or pours over some dry record, "happy fellows! I had rather hammer stone than cudgel my brain on this tedious, vexatious question." And through all the ramifications of society, all are complaining of their condition—finding fault with their particular calling. "If I were only this or that, or the other, I should be content," is the universal cry—"anything but what I am." So wags the world, so it has wagged, and so it will wag.

LEARN THE VALUE OF MONEY.

A silver dollar represents a day's work of the laborer. If it is given to a boy, he has no idea of what it has cost, or of what it is worth. He would be as likely to give a dollar as a dime for a top or any other toy. But if the boy has learned to earn his dimes and dollars by the sweat of his face, he knows the difference. Hard work is to him a measure of values that can never be rubbed out of his mind. Let him learn by experience that a hundred dollars represents a hundred weary days' labor, and it seems a great sum of money. A thousand dollars is a fortune, and ten thousand is almost inconceivable, for it is far more than he ever expects to possess. When he has earned a dollar, he thinks twice before he spends it. He wants to invest it so as to get the full value of a day's work for it. It is a great wrong to society and to a boy, to bring him up to man's estate without this knowledge. A fortune at twenty-one, without it, is almost inevitably thrown away. With it and a little capital to start on, he will make his own fortune better than any one can make it for him.

WEAR AND TEAR OF STEAMSHIPS.

It was stated by the Surveyor of the Navy in a report to the committee appointed by the treasury to inquire into the navy estimates, that at the end of fifteen years on an average the hull of each ship in the navy requires a complete and extensive repair. And, further, that the duration of a ship of war cannot be estimated at more than thirty years. The surveyor took for his guidance the average of the ten years from 1849 to 1859, when thirty-five ships of the line and forty-six frigates were removed from the effective list of the navy. We much fear that our "converted" ships, nor indeed any of our finest specimens of naval architecture, will stand the wear and tear for the periods assigned to them by the naval surveyor; and it is supposed, when he made the above statements, he alluded to the duration of sailing ships only; for we have had a few warnings lately as to the fate of our Victorias, Duncans, Howes, and Diadems, by the introduction of steam into ships of war. We have found instead of requiring a complete repair once in fifteen years, that as many months are sometimes sufficient to send a ship into dock. Shipwrights know the plank where to "prick" for rotten wood in a steamship. With unerring precision they try her just in the "wake of the boilers," where alternations of heat and cold are the greatest, and which are sufficient to destroy the seasoned timber. It is in these places that steamships require repairs oftenest. There is, however, another destructive power that disables a steamship of war in a very marked manner, and that is the "shake of the screw."

Long-continued screw propulsion at full speed soon tells a tale. We have had indications in the Princess Royal, 91, now under repair at Portsmouth, of the destructive effects of the vibratory motion of the screw. She has been almost rebuilt abaft, after having passed through one commission only. It is said also in confirmation of this, that the whole of the channel fleet is leaky, and that the Royal Albert, the flag-ship, will require a thorough caulking. When we remember how recently this ship was built and commissioned, these reports are by no means satisfactory. Judging, therefore, from the experience to be derived from the few years the screw has been in the navy, we must expect to find defects in the "deal wood" of all our ships, which is subject to the cross-strain it receives in passing through a body of water in a state of perturbation. Of course other naval powers will have the same destructive elements to contend with as ourselves. Indeed we are happy to know that the vibration in some French line-of-battle greatly exceed that of our best ships. The emperor, however, aims at speed; he knows its importance as well as we do. But to obtain this very desirable quality in screw ships of war he must be prepared to do as we do, and that is, to anticipate a very serious increase in his navy estimates, under the head of "repairs."

LABOR, THE CONDITION OF SUCCESS.

In the days of the alchemists, says the *Boot and Shoe Reporter*, the world believed that the baser metals could be transmuted into gold; and many a man spent his life in vainly searching for the philosopher's stone. But this doctrine is numbered with the chimeras of the past, and an intelligent man would now resent the imputation of such a belief. Still, among our dealers, our manufacturers, and our workmen, there are those who belong to the race of the alche-

mists. "The royal road to wealth" is the desire of numbers. In their view, the days of their fathers were the golden age, the era of easy work and large profits. Such men are always complaining of hard times, while their presence is sufficient to make hard times for any trade.

There is not—there never has been—a time when light exertions, and limited experience and skill could, except by mere accident, command a fortune. *Labor omnia vincit*, "Labor conquers all things," has ever been a true maxim. Its converse is equally true; nothing but labor conquers all things. There has always been a competition, always a race to run. The timid and faint-hearted have never won the palm. It requires more than the magic of alchemy to show that all can possess "what each desires to gain."

But labor must be attended with common sense. A man may throw earth into a quicksand, and expect to rear a solid foundation. The tower of Babel was a work of labor, but it ended in a confusion of tongues. Both in the shoe and leather manufacture many believe in the labor maxim, and exemplify their belief by crowding into an overstocked market vast quantities of poor goods. Labor, to be successful, must be intelligent, well-directed labor.

But it may be asked what shall be done in times of depression? The answer is ready. Put more labor into the same quantity of material. We might be tempted to go further, and remind the questioner that it is a disregard of the true labor principle that has produced the times of depression. It is the desire of rushing into the market the greatest quantity of production with the least amount of labor, that causes all the difficulty. The makers of good shoes and the makers of good leather seldom or never have occasion to be idle. They are the men who seldom or never fail.

There are those who believe that by remaining idle, say one-fourth part of the time, they can make their labor, during the remaining three-fourths, worth more than it otherwise would be for the whole time. The shoe journeymen have acted on this principle, and devoted several weeks to making speeches on the value of labor. The theory is absurd. The wise monarch never uttered a truer sentiment than when he said—"In all labor there is profit, but the talk of the lips tendeth only to penury." The same remark is applicable to shoe manufacturers and tanners. Mere complaints can do no good. Attempts to seek the cause of difficulty outside of themselves, and to cast blame on others, will accomplish nothing. It is well for them to throw as much light as possible on the working of the trade, and to receive from others similar assistance; but all this should have a direct tendency to make their labor more intelligent and better directed. If a manufacturer is forced to suspend a part of his exertions for a time, he certainly can use those means which will increase his skill, and consequently make his time more valuable when he is able to resume. A good workman seldom fails to find employers, and at the highest wages. A good manufacturer seldom fails to find purchasers, and at the highest prices.

There are times in the history of every trade when the question may arise for intelligent labor to consider whether, to be successful, it may not be necessary to extend the market, or for a portion to seek employment in a different field. This question has already confronted the journeymen, and whether the manufacturers of shoes and leather have yet to meet it, may receive our further attention.

EARLY HOURS.

Much of the best preaching in the world, and a good deal of the worst practice, has reference to habits of early rising. All the moralists agree in urging the advantages of being up betimes. A. Bronson Alcott, the finest transcendental philosopher of the times, grows eloquent upon the spiritual benefits derived from "breakfasting upon the morning dew." Franklin, chief of those philosophers who are "of the earth, earthy," gives currency to the maxim, that—

"Early to bed and early to rise
Makes a man healthy, wealthy, and wise."

Most of those who recommend early rising forget to urge early retiring as of equal importance. But it happens to be true that the former without the latter is injurious rather than beneficial. There is no wisdom nor merit in cutting short one's nightly allowance of sleep for the mere purpose of being up at a certain hour in the morning. This is folly. Indeed, the moralists who deal with this subject, would do better to drop the advice about early rising, and lay all the force of their injunctions upon the importance of retiring early. For those who are "early to bed" are pretty sure, as a matter of course, to be "early to rise." Late hours in the morning is generally confined to those classes whose business or pleasure keeps them up "late o' night." Hence literary people, who affect to regard the night as the noonday of the mind, are apt to keep late hours and defend the same. Charles Lamb considered the saying that "we should lie down with the lamb" to be as truly a popular fallacy as that "we should rise with the lark." Tom Hood, the inveterate punster, satirized early rising in ten verses of of "Morning Meditations," in his best style :—

"Let Taylor preach upon a morning breezy,
How well to rise while night and larks are flying,
For my part, getting up seems not so easy,
By half as lying.

So here I'll lie, my morning call deferring,
Till something nearer to the stroke of noon;
A man that's fond precociously of stirring
Must be a spoon.

RULES FOR THE ECONOMICAL.

As a general rule it is most economical to buy the best articles. The price is, of course, a little higher; but good articles spend best. It is a sacrifice of money to buy poor cheese, lard, etc., to say nothing of the injurious effect upon health.

Of the West India sugar and molasses the Santa Cruz and Porto Rico are considered the best. The Havana is seldom clean. White sugar from Brazil is sometimes very good.

Refined sugar usually contains most of the saccharine substance; there is probably more economy in using loaf, crushed, and granulated sugars, than we should first suppose.

Butter that is made in September and October is the best for winter use. Lard should be hard and white; and that which is taken from a hog not over a year old is best.

Rich cheese feels softer under the pressure of the finger. That which is very strong is neither very good nor healthy. To keep one that is cut, tie it up in a bag that will not admit flies, and hang it in a cool, dry place. If mould appears on it wipe it off with a dry cloth.

Flour and meal of all kinds should be kept in a cool, dry place.

The best rice is large, and has a clear, fresh look. Old rice sometimes has little black insects inside the kernels.

The small white sago, called the pearl sago, is the best. The large brown kind has an earthy taste. This article, and tapioca, ground rice, etc., should be kept covered.

To select nutmegs, pick them with a pin. If they are good, the oil will instantly spread around the puncture.

Keep coffee by itself, as the odor affects other articles. Keep tea in a close chest or canister.

Oranges and lemons keep best wrapped close in soft paper, and laid in a drawer of linen.

The cracked cocoa is best; but that which is put up in pound papers is often very good.

Soft soap should be kept in a dry place in the cellar, and not be used until three months old.

To thaw frozen potatoes, put them in hot water. To thaw frozen apples, put them in cold water. Neither will keep after being frozen.

EMPLOYMENTS FOR LADIES.

Nothing marks the civilization of any city or country so much as the employments of females. In large sections of Europe the eye of the traveler will, as he scans the fields in the spring, see women harnessed to the plow, and drawing in connection with the beasts of burden. As civilization advances among the masses, all this of necessity is cut short, because there are so many more duties in which she can work with so much greater efficiency and profit, so that no family can afford for women to be thus employed. The old-fashioned ideas of nobility have acted upon society in no way so injuriously as this, namely: To render the serious employment of woman in works of utility unfashionable. This idea has filled the Turkish harems with expensive dolls dressed in Oriental magnificence, and yet pining in idle misery. In this country there is a wider range of employment for woman than any other, unless it be France. Certain it is, that here the amount of money paid for work performed by females is far greater. There is, however, still a constant increase in the variety of female employments, and new ways are being constantly struck out by which they can utilize their powers. It is no longer needle-work alone that occupies them, or the sale of certain articles, such as millinery, etc. Book-keeping is performed by them with the most perfect accuracy and success. The setting of types and reading of proofs seem exactly to suit her quick eyes and nimble fingers. Large and important branches of medical attendance are rapidly falling into her hands, and for teaching she has always been more fitted than man; from our a, b, c to algebra and mathematics on the one hand, or music and painting on the other, the largest and best share of the teaching of her own sex and of the childhood of the other, seem naturally to devolve upon her.

The age is constantly producing changes in this respect. The improvements of the machines and inventions for saving all kinds of domestic labor, renders her work lighter in some directions—those requiring less skill and more force. This makes necessary new employments of a higher character every year. Sewing machines must, by degrees, render the needle less and less productive, but the increased remuneration given to those who learn well to manage the new machines more than compensates for this, to the enterprising and industrious. Still new employments are needed, and methods of safeguard from insult and fraud in the old walks of female industry.

COMMERCE AND THE PEERAGE.

The great bulk of the English peerage is comparatively modern, so far as the titles go; but it is not the less noble that it has been recruited to so large an extent from the ranks of honorable industry. In olden times, the wealth and commerce of London, conducted, as it was, by energetic and enterprising men, was a prolific source of peerages. Thus, the earldom of Cornwallis was founded by THOMAS CORNWALLIS, the Cheapside merchant; that of Essex by WILLIAM CAPEL, the draper; and that of Craven by WILLIAM CRAVEN, the merchant tailor. The modern Earl of Warwick is not descended from "the kingmaker," but from WILLIAM GREVILLE, the woolstapler; while the modern dukes of Northumberland find their head, not in the PERCIES, but in HUGH SMITHSON, a respectable London apothecary.

The founders of the families of DARTMOUTH, RADNOR, DUCIE, and POMFRET, were respectively a skinner, a silk manufacturer, a merchant tailor, and a Calais merchant; while the founders of the peerages of TANKERVILLE, DORMER, and COVENTRY, were mercers. The ancesters of Earl ROMNEY and lords DUDLEY and WARD, were goldsmiths and jewelers, and Lord DACRES was a banker in the reign of CHARLES I., as Lord OVERSTONE is in that of Queen VICTORIA. EDWARD OSBORNE, the founder of the Dukedom of Leeds, was apprentice to WILLIAM HEWETT, a rich clothworker on London Bridge, whose only daughter he courageously rescued from drowning, by leaping into the Thames after her, and eventually married. Among other peerages founded by trade, are those of FITZWILLIAM, LEIGH, PETRE, COWPER, DARNLEY, HILL, and CARRINGTON.

LIVING WITHIN MEANS.

There is now a dreadful ambition abroad for being "genteel." We keep up appearances too often at the expense of honesty; and though we may not be rich, yet we must seem to be "respectable," though only in the meanest sense—in mere vulgar outside show. We have not the courage to go patiently onward in the condition of life in which it has pleased God to call us, but we must needs live in some fashionable state to which we ridiculously please to call ourselves, and all to gratify the vanity of that unsubstantial world of which we form a part. There is a constant pressure and struggle for front seats in the social amphitheater, in the midst of which all noble and self-sacrificing resolve is trodden down, and many fine natures are involuntarily crushed to death. What waste, what misery, what bankruptcy, come from all this ambition to dazzle others with the glare of apparent worldly success, we need not describe. The mischievous results show themselves in a thousand ways—in the rank fraud committed by men who dare to be dishonest, but do not dare to be seen poor; and in the desperate dashes at fortune, in which the pity is not so much for those who fail as for the hundreds of innocent families who are so often involved in their ruin.

CUSTOMS ON THE GOLD COAST.

It may be interesting to some of our readers to know that the following curious custom exists on the Gold Coast. When there is war going on, and the people have gone forth to fight, all the full grown women go about the streets shouting, singing, dancing, and prancing about. On the 25th November, while the Bentil and Intin companies were fighting on the plains near the Salt Pond, vast numbers of the native females of Cape Coast paraded the respective quarters after the fashion we have described. The women of the Intin quarter mustered not less than 900, all between the ages of about eighteen and fifty five, very old and very young women not joining in the ceremonies. All these ladies were dressed in clothes of a white ground, and had likewise rubbed their bodies with some white preparation. The theory is, that while war is going on, no man stays in the town! and, acting on this theory, the ladies very often, by way of showing their contempt for the men that stay behind, take liberties and perform feats which at any other time would be considered indecent, but which in these moments are looked upon as a matter of course. The Bentil ladies also paraded their quarter of the town during the time the fighting was going on, but they were far fewer in numbers than the Intins. It seems that on the day of the combat, Mr. SAMUEL COLLINS BREW, of Anamaboe, was near being shot. This gentleman was in the midst of the lines, endeavoring to reason with the people, when the firing commenced, and several shots came unpleasantly close to him. Luckily, however, he escaped without being hurt. Mr. ISAAC ROBERTSON, a native merchant, of Cape Coast, also had a narrow escape while assisting the mayor in his efforts on the field.

MODERN SHIPBUILDING.

At the recent launch of a packet ship of 1,150 tons, at East Boston, named Edward Everett, Mr. E., at a lunch they gave, among other remarks, thus compared our modern ships to those built forty or fifty years ago :—

Young men, sir, hardly know the progress which has been made in shipbuilding, in this generation, in this part of the country, and, indeed, in every part where ships are built. The first voyage I made to Europe, was in 1815, in what was then considered a first class merchant ship, a Liverpool trader, belonging to one of the most enterprising Boston merchants. She was a ship of three hundred and fifty tons, and there were not many larger vessels at that time in our commercial marine. I will warrant she was advertised as a first rate burthensome vessel. A ship of six or seven hundred tons would have been thought a wonder, and talked of very much as the Great Eastern is at the present day. In fact, twelve hundred tons were thought a pretty good allowance for a ship of the line. Lord NELSON'S famous Victory did not, I believe, exceed that size. Such was the standard of shipbuilding in my younger days. Three years ago I went up Lake Erie from Buffalo to Detroit, in a vessel of twenty-two hundred and fifty tons, and I was told she was the smallest of three of which the line consisted. I believe, however, that magnitude is the least important particular in which our shipbuilding has improved. I presume that in skillful and tasteful modeling, choice of superior material of wood, metal and canvas, in thoroughness of workmanship, and consequent speed, capacity, strength, and beauty, the the improvement has been still more signal. Two of the three vessels in which COLUMBUS made his first voyage were so small as to be without decks, not bigger, I suppose, than a good sized whale boat. What would not have been the emotions of the Great Discoverer, could he have foreseen that in less than four centuries, vessels like that which you have seen launched to-day would be built in a remote corner of that new-found world.

THE BOOK TRADE.

1.—*Text-book in Intellectual Philosophy, for Schools and Colleges;* containing an outline of the Science, with an abstract of its History. By J. T. CHAMPLIN, D. D., President of Waterville College. 12mo., pp. 240. Boston: Crosby, Nichols, Lee & Co.

This treatise is called a text-book, says the author, because it has been purposely thrown into the form adapted to the class-room, rather than that adapted to general reading; and to intimate, at the same time, that it is offered to the public, not so much as a new contribution to the matter of science, as to its form. However, it will probably be found about as original as the other treatises on the subject which have appeared since the principles of the science have been so fully developed. What is here presented is confessedly but an outline, and, as a text-book, it should be only such. Whether we consider the wants of the pupil or those of the teacher, a text-book should be brief; it should contain only the fundamental facts and principles of the science to which it is devoted. The field of science is so extended that only the most commanding and essential features can be surveyed in a general course of education. Where there is so much that is important, the mind of the pupil should not be encumbered with what is unessential. Something should be left to be supplied by the teacher, and something to be learned by after study. An outline is all that ought to be committed to memory by the pupil, and all that is required by the teacher, as a nucleus around which to gather supplementary and illustrative matter. For this purpose the present treatise, we think, will be found adequate in all respects, and well worthy a place on the student's desk.

2.—*Home and College.* A Public Address delivered in the Hall of the Massachusetts House of Representatives. By F. D. HUNTINGTON. Boston: Crosby, Nichols, Lee & Co.

This little volume is made up entirely of an exceedingly scholarly and manly essay dedicated to students, but its morals and maxims are equally applicable to the heads of families. We believe it to be an established fact that by far the larger portion of those who have risen to eminence and excellence were not those born to proud patrimonies. On the contrary, their earlier years were generally strewn with difficulties, single-handed struggles and discouragements, which but tend to strengthen the really moral and intellectual character. In speaking of those, or rather prophecying of those, to whom a collegiate course of life is apt to end honorably, happy, and successful, Mr. HUNTINGTON reads many sage and useful lessons, by reading which all may profit.

3.—*Mary Stuart Queen of Scots.* An Historical Romance of the Sixteenth Century. By GEORGE W. M. REYNOLDS. Philadelphia: T. B. Peterson & Brothers.

There is probably no subject which attaches so much of romance as does the fate of MARY STUART. We have not read the book in question, but in the hands of an author of Mr. REYNOLDS' repute, a subject so prolific of interest as MARY STUART Queen of Scots cannot be otherwise than interesting.

4.—*Abridgment of the Debates of Congress from* 1789 *to* 1856. From Gales and Seaton's Annals of Congress; from their Register of Debates; and from the original reported Debates by John C. Rives. By the author of the "Thirty Years' View." Vol. xiv. Royal 8vo., pp. 747. New York: D. Appleton & Co.

The present volume brings this valuable epitome of our National Legislature down to the close of the 27th Congress, March, 1843, and a few volumes more will see completed the most perfect text-book of the doings of our national assembly, ever put forth by the American press.

5.—*Dickens' Short Stories.* Containing thirty-one stories never before published in this country. By CHARLES DICKENS. 12mo., pp. 298. Philadelphia: T. B. Peterson & Brothers.

Peterson's, we believe, are the only complete and uniform editions of Charles Dickens' works, ever published in this country. No expense has been spared by this enterprising firm in the getting up of the various American editions of this great story teller, consequently, we have both illustrated, and what is known as the people's cheap edition, neatly bound in cloth, and each volume complete within itself. The present comprises thirty-one short stories never before published in this country, and will be found an excellent companion for a steamboat or rail-car just at this season, to be placed in one's carpet-bag.

6.—*Friarswood Post-office.* By the author of the "Heir of Redclyffe." 16mo., pp. 251. New York: D Appleton & Co.

This is another pleasant story of English life, describing Christian fortitude and virtue, in the endurance of life's trials by a poor family, who, though suffering from afflictions, persevered with industry and determination, till a happy termination of their troubles and difficulties was attained. It is also well written, and will be found interesting.

7.—*The Little Beauty.* By Mrs. GREY, author of the "Gambler's Wife," "Old Dower House," "Duke and Cousin," "Lena Cameron," etc., etc. 12mo., pp. 626. Philadelphia: T. B. Peterson & Brother.

T. B. PETERSON & BROTHERS have just published, simultaneously with its appearance in London, another new and fascinating novel by Mrs. GREY. "The Little Beauty" will no doubt have numerous admirers, as the characters are all well drawn and woven into a charming thread of story.

8.—*The Rebel and the Rover.* By HARRY HAZEL. Philadelphia: T. B. Peterson & Brothers.

A sea story and an immense yarn.

9.—*Church Choral Book;* containing Tunes and Hymns for Congregational Singing, and adapted to Choirs and Social Worship. By B. F. BAKER and J. W. TUFTS. 8vo., pp. 203. Boston: Crosby, Nichols, Lee & Co.

HUNT'S

MERCHANTS' MAGAZINE.

Established July, 1839, by Freeman Hunt.

VOLUME XLIII. AUGUST, 1860. NUMBER II.

CONTENTS OF NO. II., VOL. XLIII.

ARTICLES.

ART. PAGE

I. VALUATION OF LIFE INSURANCE POLICIES. By Prof. C. F. McCay, of Georgia 147

II. GEOGRAPHICAL DISCOVERY IN EASTERN AFRICA; with reference to its Commerce and the Influence which the Proposed Suez Canal is likely to exercise upon its development; and a Sketch of Recent Political Events in Abessinia and Madagascar.. 154

III. BRAZIL: ITS TRADE AND FINANCES. No. II. Origin of the Errors of the Financiers of Brazil..... 167

IV. THE EFFECTS OF USURY ON PRICES AND WAGES. By Wm. Brown, of Cote des Neiges, Canada..... 178

V. COMMERCIAL AND INDUSTRIAL CITIES OF THE UNITED STATES. No. LXXVI. NEW ENGLAND TOWNS. Dover—Early Settlement—Fishing—Indian Trade—Separation of New Hampshire from Massachusetts—Population—West Indian Trade—War—Population in 1800—Farming and Ship-building—First Factory, 1821—Cotton Triumphs—New Print Works—Great Success—Shoe Manufacturing—Southern Markets—Railroad—Cost of Living—Carpet Factory—Present Population—Packets to New York. Exeter—Settlement of—Annexation—Voters Killed by Indians—Originates Statesmen—Birth-place of Lewis Cass—Cotton Manufacturing—Success—Water Power—Gas Pipes—Population. Vermont Towns—Brattleboro'—Settlement—Col. Brattle—Boundaries—Population—Factories—Operatives—Banks—Tannery. Rockingham—Fishing—Early Population—Situation—Connecticut River—Industries—Banks. Windsor—Settlement of—Early Occupations—Disputes—State Constitution—Population—Prison—Employment of Convicts—Arms Company—United States Court..... 190

JOURNAL OF MERCANTILE LAW.

Important Opinion on the Tariff—The question of Duty on Caustic Soda..... 205
Important Action on a Commercial Contract..... 206
Shipping to Havre..... 207

COMMERCIAL CHRONICLE AND REVIEW.

Fiscal Year—Aggregate Business—Duties—Accumulation of Capital—Tendency of Exchange to the Atlantic—Contraction—Decreased Quantity—Imports too Large—Cotton Crop—Harvests—Exports of Food—Grain—Value—Rate of Interest—Higher Abroad—War Rates—Average Rates—No Enterprise—War Clouds in Europe—Loans—Freedom of Industry—Abundance of Currency—Product of Mines—Rates of Interest—New Loans—Treasury Notes—Specie Shipments—Receipts—Rates of Sterling—Reduction of Specie in the City—Mint—Assay-Office—July Interests—Large Payments—New York—Boston—Manufacturing Dividends—Improved Trade—Demand for Cotton—Situation of Crops—Quantity Consumed—Value Exported..... 208-217

PAGE

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

Real and Personal Property in the city of New York.—Taxable Value of Alabama 218
New York City Banks, March, 1859 and 1860 219
City Weekly Bank Returns—Banks of New York, Boston, Philadelphia, New Orleans, Pittsburg, St. Louis, Providence 219
Bank of England Circulation.—Valuation of Georgia 222
Valuation of the State of Texas 223
Banks of the State of Virginia.—The Revenue of Japan 224
The State Bank of Iowa, May 7, 1860.—Debt of North Carolina 225
Banks of the State of New York.—The Banks of Missouri 226
Banks of New Jersey.—Finances of Austria 227
Bank of the State of Indiana.—United States Coins 228
The Japanese Currency 230

STATISTICS OF TRADE AND COMMERCE.

Virginia Flour Trade 230
California to New York, via China 232
British Trade with Russia 234
Japanese Trade 235
British Imports and Exports 236

JOURNAL OF INSURANCE.

New Jersey Insurance Law 237

NAUTICAL INTELLIGENCE.

American Timber for Ship-Building 238
Alteration of Lights in Gulfs of Riga and Finland 239
Revolving Light on the Cape of Good Hope. South Atlantic 240
Goodwin Sands.—Margate Sand and North Foreland Lighthouse 241

COMMERCIAL REGULATIONS.

Canadian and American Tariffs 242

POSTAL DEPARTMENT.

Cuban Island Mails 243
The Telegraph and the Press.—Prepayments of Postage by Stamps 244

JOURNAL OF MINING, MANUFACTURES, AND ART.

Tin of Commerce 245
Pegging Shoes by Steam 246
Copper Mining in Cornwall.—Ferrum, or True Iron 247
A Southern Shoe Factory 248
Changes in Labor Value.—Tidal Motive Power 249
Lake Superior Mines.—Coal in England.—Mining Fortune 250

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

Connecticut Railways.—Railways in India 251
The Simplon to be Tunneled.—Michigan Central Railroad 253
Railroad Receipts for June.—Long Dock Tunnel, N. J. 254
St. Mary's Canal.—Ohio Canals.—Marine Engines 255
The Florida Railway 256

STATISTICS OF AGRICULTURE, &c.

Agriculture in France 257
Flax Cotton 258
Agriculture in Georgia—Increase in the use of Fertilizers 259

STATISTICS OF POPULATION, &c.

Population of Georgia in 1859 260
Emigration and Pauperism 262
Statistics of Marriage 263
Population of Turkey 264

MERCANTILE MISCELLANIES.

Dimensions and Capacity of the Great Eastern 265
Arctic Expedition 266
Creditor vs. Debtor.—Recreation 267
Mercantile Vigilance.—A lost Bank Bill 268
A Silk Establishment 269
A Bit of Paris Gossip.—"Vuelta Abajo" and "Vuelta Arriba."—The first Large Ship.—Blankets 270

THE BOOK TRADE.

Notices of new Books or new Editions 271-272

HUNT'S

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

AUGUST, 1860.

Art. I.—VALUATION OF LIFE INSURANCE POLICIES.

NUMBER IV.

In former numbers we have insisted that the valuation of gross premiums ignores future expenses and other contingencies, and anticipates future profits that may never be received; that the method of net premiums reserves every farthing that has been earned; and even more, for it only provides for the net cost of the future hazard as far as it is met by the past premiums, besides omitting all reference to the deterioration of life, or the diminished mortality of the early years of the policy. But in order to anticipate the correct value of the future risk, it is necessary to know the true rate of mortality at every age for the whole duration of life. If this cannot be known, we must obtain the nearest approximation to it that is possible. With this we can determine what portion of the past payments belong to the future hazard not yet incurred; and what amount must be reserved out of past profits to make up any deficiencies in the future premiums towards paying their share of the future risk and future contingencies. With a false or defective table both these results will be more or less erroneous.

To learn the true mortality that shall hereafter occur in any company's experience is of course impossible. But, as the future may be judged by the past, in life and death as well as other natural phenomena, it is only necessary to obtain the past mortality at every period of life, and to add to it a proper margin for fluctuations, deteriorations of life, and the probable excess of American deaths over the experience of other countries. We have no vital statistics in the United States that are sufficient for this purpose, nor are we likely to have for years to come. The United States census, and the mortuary reports in our cities, and the imperfect registrations in the several States, do not furnish even an approximation to the true mortality. An extensive collection of materials has

been begun by our life companies, which will, in the course of time, be very valuable, and supply exactly what is wanted. But our offices are all so recent, the withdrawals are so numerous, and the yearly additions of new members so large, that the duration of membership cannot average now more than three or four years. A long time must therefore elapse before this collection, however extensively made and carefully continued, will enable us to know the average mortality among assured lives, much less the mortality that may be expected in the later years of insurance. Our dependence is therefore on the English and other European tables, and, with the proper additions, we can rely on these with safety.

Among these tables there is much accordance. If the best and most recent be selected, their substantial agreement is remarkable, when we consider the different sources from which they have been derived. In none does the expectation of life differ more than a year or two at any age, as appears by the following comparison of some of the best tables:—

Age.	20.	30.	40.	50.
Carlisle	41.46	34.34	27.61	21.11
Davies' equitable	41.06	33.98	27·40	20.83
Farr's English No. 1	39.88	33.13	26.57	20.03
Farr's English No. 2	39.99	33.31	26.43	19.87
Actuaries'	41.49	34.43	27 28	20 18

Although these tables agree so well with one another, every one of them is known to have defects, and the same may be said of the best that have been published. Some of these deficiencies are in the observations on which they are based, some in the small numbers from which they are derived, and some from the defective mode of construction. The Carlisle has a very small basis, and is badly adjusted. Davies' is from the experience of a single life company. Farr's tables are dependent upon the census returns of population in England, which are probably very imperfect, and on the official registrations of deaths, in which a great many of the ages are given in round numbers, and with more or less errors. The actuaries' is founded partly on policies and not on lives; and these or other defects belong to all the published tables.

These imperfections result in an excessive mortality at one age and a deficient rate at another, even when there is a general agreement in the whole table. Thus while the Carlisle gives the rate of mortality from 15 to 20 higher than Davies', from 21 to 29 it is lower; from 30 to 31 it is again higher, while from 32 to 39 it is lower; from 40 to 46 it again exceeds Davies', while from 47 to 59 it falls below; then rising again, only to be succeeded by another depression near the end of life. If the actuaries' be compared with Davies', we find it higher from 15 to 25, lower from 26 to 59, and then generally lower to the close of the table. If the actuaries' be compared with Farr's, we find it lower up to 50, and higher up to 100.

Even in the expectation of life some of these oscillations occur. Thus Farr's is generally lower than Davies', but near the close of life it is less. Farr's at all the earlier and later ages is above the Northampton, but from 65 to 74 it is less. Davies' is below the Carlisle from 15 to 50, above it from 55 to 75, and below it at the older ages.

Besides these irregularities, the general rate in some tables is higher than in others. But the excess or diminution is in all cases small. Thus

the actuaries' is ten per cent lower than Farr's, from 20 to 25, fifteen per cent up to 35, twenty per cent to 40, fifteen to 45, equal to it at 50, and exceeding it two or three per cent to 80, with a small excess to the end of life.

The near agreement between all the good tables indicates most clearly the remedy to be applied to correct the errors of each. It is a combination of all, giving different weights to each in proportion to its reliability and value. This will eliminate the excesses and deficiencies of each at every age, and give a mean between the highest and the lowest, more worthy of confidence than any single table.

In the most accurate sciences, this reduction to a mean result is continually resorted to, and what we may do with safety and propriety in astronomy, geodesy, and every department of natural philosophy, may, and ought to be, applied to vital statistics. We must, indeed, make a selection of these, and adopt only the good and reliable. Just as we reject defective observations in astronomy, so we must here exclude what is conjectural and unworthy of confidence.

Such a procedure is warranted by the very nature of the case. As it would be improper to determine the law of increase in the population of our whole country from a single city or State, so it is wrong to anticipate our general mortality from that of Carlisle, or Northampton, or Glasgow. As widely extended or long continued observations are needed to determine the proportions of the two sexes, the ratio of births to marriages, and all vital phenomena subject to law, so are they necessary for obtaining the true mortality at every period of life.

This is especially true for the necessities of our American life offices. As they cannot know, before experience, which of the European tables will best suit them, their proper course is to adopt an average of all. Even if they have reason to believe that the American mortality is likely to correspond with the higher European tables, it is best for them to take an average table and add such a percentage as they may think best suited to their wants; since whatever depressing causes are here operating, their intensity is alike active at all ages.

If any one should say we have reason to believe from past experience, that the actuaries' table corresponds best with our mortality, it is easy to reply, that it is in the highest degree improbable that the future experience of our life companies will correspond, either in its total amount or in its comparative rate of mortality at different ages, with the past when its lives were fresh and its numbers constantly recruited with new accessions. The past agreement with any European table is therefore no guide for the future.

If any one should contend that the actuaries' table is best suited for our calculations, because it was made up from the same class as ours, the answer is ready, that the actuaries' table is more or less defective on account of its use of policies, and not lives, and that the law and rate of mortality which our offices wish to know, is for the future or later years of a company, and not for its whole experience.

So if any one should prefer the equitable, or Farr's, or Neison's, or any other table, the objection is, that all have their defects, and that it is best to use an average of all, adding a proper margin to meet the peculiar necessities of any company.

In making this average, it is not contended that all tables should be

used. Some have been made on insufficient observations which have not been recorded and preserved. Various defects are known to exist in many, and it is only proposed to use those whose merits have secured for them general esteem and confidence. To each of these, different weights ought to be allowed in proportion to their value, so that the mean will approximate to the true mortality at every period of life.

Of the earlier tables published by Dr. Price, or his contemporaries or predecessors, few are of any value, because for the most part they are founded on the deaths only, with some hypothesis as to the living. Halley's, for Breslau, is worth something; but the Switzerland, the Vienna, the London, the Norwich, the Brandenburg, the Berlin, the Warrington, the Chester, the Shrewsbury, the Stockholm, the Montpelier, and those of Kerseboom, Des Parcieux, Duvillard, and De Moivre are of very little value. The Northampton has been more esteemed, and at the older ages it is so nearly correct that Mr. Morgan, who is high authority, preferred it to any of the recent tables for the purposes of life valuations. At the younger ages it gives the mortality too high. But as the hypothesis on which it was founded, of a stationary population without emigration or immigration, was certainly incorrect, we shall exclude it from the combination which we propose to make. Mr. Farr has shown how erroneous are its results and the hypothesis on which it is based, and taken away from it all the estimation which remained to it. The Swedish table in Dr. Price's book, being founded on a large number of observations, and based on correct principles, is the earliest table on which any reliance can be placed.

The Carlisle is later than the time of Dr. Price, and has been highly esteemed. The facts on which it depends were carefully observed by Dr. Heysham, and the general results obtained from it correspond with those of the best tables. At the age of ten its expectation of life corresponds with the Equitable; up to fifty it is less than half a year above, from fifty to eighty it is about the same amount below, and from eighty upwards it is again slightly in excess. It needs adjustment, however, very much, and although prepared by a skillful mathematician, the interpolations for each decade of years were made in total neglect of all mathematical rules, the graphic or ocular method having been used instead of any arithmetical formula or principle. As the value of an annuity by this table, as well as the expectation of life, agrees very nearly with the best tables, we shall use it in the combination we propose to make. Before doing so we will, however, adjust it to some extent, and also construct a new table from Dr. Heysham's observations.

The number of the living, as given by Mr. Milne, at every age, from fifteen upwards, in a stationary population following the same law of mortality as at Carlisle, is inserted in the second column of the table at the end of this article. It is found to be true in most tables of mortality, and in all the best ones, that there is a regular increase in the rate of mortality from the age of ten to the end of life. At the earlier years the increase is slow and almost in arithmetical progression. After sixty it is more rapid, and seems to follow very nearly a geometrical progression. Thus, in the actuaries' table the mortality or ratio of the dying to the living at—

	15	20	25	30	35	40	60	65	70	75	80	85
Is.....	.0069	78	78	84	93	104	303	441	649	956	140	205
And their ratio is	1.06	1.07	1.08	1.10	1.12	....	1.45	1.47	1.47	1.47	1.47	

At all ages, for short periods of four or five years, the rate, whether increasing or decreasing, may be supposed to be in geometrical progression, and though this is not true for long periods, nor exactly true for short periods, especially at the middle time of life, it is sufficiently correct for all ages to be used to adjust the irregularities that will be found in constructing any table of mortality within the limit here proposed. Mr. Finlaison has used this principle for adjusting his tables, and even extended it. By applying this to Mr. Milne's Carlisle it is relieved of most of its anomalies. In the third column of the table below we have placed the rate of mortality at Carlisle, or the ratio of the dying to the living at every age, omitting the decimal cyphers, which can easily be supplied, and in the fourth the adjusted rates or the geometrical mean of five consecutive ratios. As it is the rates of mortality that we shall use in making our combination of the several tables, we will not continue this work and construct an adjusted table for all ages. The harmony and regularity introduced by the proposed mode of adjustment can be seen by a glance along the two columns.

To reconstruct the Carlisle table by some mathematical rule, various methods might be tried. The plan proposed by Mr. Farr is, perhaps, the most simple; but, in this case, we have preferred the interpolation of the living and dying at each age by the method of differences. This method represents so nearly the true population and the deaths at every age that the rate of mortality which it gives must approximate the reality very closely. By adjusting this rate we shall approach more nearly the true rate.

The following are Dr. Heysham's observations of the deaths and the living at Carlisle, from which Mr. Milne constructed his table:—

Age.	Jan., 1780. Dec., 1787. Living.		Whole time.	Deaths.
15 to 19	675	763	6432	44
20 to 29	1328	1501	12633	96
30 to 39	877	991	8342	89
40 to 49	858	970	8163	118
50 to 59	588	665	5595	103
60 to 69	438	494	4162	173
70 to 79	191	216	1818	152
80 to 89	58	66	554	98
90 and upwards	12	13	112	32

The deaths being for the nine years from 1779 to 1787, the increase of the people between the two enumerations is used to obtain the living at the middle period of the time for which the deaths were recorded, and thence the whole number of the inhabitants for the whole time is deduced. These numbers of the living and dying are interpolated by the method of differences, and form columns fifth and sixth in the table below, the deaths being multiplied tenfold on account of their small numbers. From these we get the ratio of the dying to the living, which is inserted in the seventh column. This ratio is for the middle of the year at each age, since all who are over twenty and under twenty-one are counted at twenty in taking the census, or reporting the deaths. Making a correction for this half year, by Farr's or Milne's formula, first adjusting the ratios by the geometrical method used before, we obtain column eighth, or the adjusted rate of mortality at the beginning of each year of life. And hence the corrected table of Carlisle mortality, which forms the last column of the table.

In this reconstruction no hypothesis is used; but the facts furnished by Dr. Heysham are rigidly adhered to. In the adjustment of the eighth column the geometrical mean of five ratios is indeed used as the true ratio; but that makes very little difference in the final result. It is, moreover, the fairest mode of adjustment that suggests itself, and being in accordance with all the best tables, it can scarcely be called a hypothesis.

The final resulting table differs but little from Mr. Milne's. Beginning even with it at fifteen, it falls below slightly to nineteen, is even again at twenty and twenty-one, then below to twenty-nine, even at thirty, above to thirty-eight, below to forty five, above to forty-eight, below to sixty, above to sixty-eight, below to seventy-five, above to eighty-one, below to eighty-seven, above to ninety-seven, and then below to the end of the table—the differences being always inconsiderable. And yet the new table is free from all the anomalies in Mr. Milne's. There is no sudden increase in the mortality; there are no decrements in the rate, while Mr. Milne has several; the differences from year to year, though not uniform, are regular. All the value of the old table is preserved, while its defects and irregularities have disappeared. And this, without any artifice or arbitrary adjustment, but only by the substitution of an arithmetical for a graphical mode of interpolation. The necessity of adjusting the Carlisle table is universally acknowledged, and all the premiums of our life companies that profess to be derived from it are not taken from the table itself, but from some of its adjustments. Mr. Woolhouse has adopted an adjusted Carlisle table in his calculations for the International, and, knowing his mathematical skill, we do not doubt it is much superior to the original. To our adjusted table we shall not hesitate to give a larger weight in the combination we propose than to Mr. Milne's:—

Age.	Carlisle table.	Rate of mortality.	Adjusted rate.	Living.	Dying.	Ratio.	Adjusted rate.	New table
15...	6300	.0062	.0062	1194	80	.0067	.0067	6300
16...	6261	67	66	1255	85	68	67	6258
17...	6219	69	68	1300	89	68	68	6216
18...	6176	70	69	1332	92	69	68	6174
19...	6133	70	70	1351	94	70	69	6132
20...	6090	71	70	1361	96	71	70	6090
21...	6047	69	70	1360	97	71	71	6047
22...	6005	70	70	1350	98	73	72	6004
23...	5963	70	71	1331	98	74	73	5961
24...	5921	71	72	1304	98	75	75	5917
25...	5879	73	73	1271	97	76	76	5873
26...	5836	74	76	1232	96	78	78	5828
27...	5793	78	81	1189	95	80	80	5783
28...	5748	87	86	1142	93	82	82	5737
29...	5698	98	93	1093	92	84	84	5690
30...	5642	101	98	1010	88	87	87	5642
31...	5585	102	100	942	85	90	90	5593
32...	5528	101	101	887	84	95	95	5543
33...	5472	101	102	843	84	100	99	5491
34...	5417	102	103	809	86	106	104	5437
35...	5362	102	104	786	87	111	110	5381
36...	5307	106	106	771	89	115	114	5322
37...	5251	109	110	764	92	120	119	5261
38...	5194	112	115	763	95	125	124	5198
39...	5136	119	121	767	100	130	129	5134
40...	5075	130	128	802	108	135	133	5068
41...	5009	138	135	827	115	139	137	5001
42...	4940	144	141	842	120	143	140	4932

Age.	Carlisle table.	Rate of mortality.	Adjusted rate.	Living.	Dying.	Ratio.	Adjustad rate.	New table.
43...	4869	146	145	849	123	145	142	4864
44...	4798	148	147	847	123	145	144	4795
45...	4727	148	147	838	123	147	145	4726
46...	4657	148	146	824	121	147	146	4658
47...	4588	146	143	804	119	148	147	4590
48...	4521	139	141	779	116	149	147	4523
49...	4458	137	140	751	112	149	148	4457
50...	4397	134	141	700	105	149	149	4391
51 ..	4338	143	145	655	99	150	151	4326
52...	4276	152	151	617	95	152	155	4261
53...	4211	161	161	584	93	159	162	4195
54...	4143	169	170	555	94	169	170	4127
55...	4073	179	181	531	97	183	183	4057
56...	4000	190	196	511	102	200	198	3982
57...	3924	209	218	494	107	219	216	3903
58...	3842	242	247	480	114	240	238	3819
59...	3749	283	280	468	124	267	263	3728
60...	3643	335	314	466	140	300	290	3630
61...	3521	358	345	464	153	330	318	3525
62...	3395	374	369	460	164	357	347	3414
63...	3268	383	385	452	172	381	374	3296
64...	3143	398	398	438	179	409	398	3173
65...	3018	411	412	421	183	435	428	3047
66...	2894	425	423	401	185	461	451	2918
67...	2177	444	446	378	186	493	479	2787
68...	2648	464	467	354	185	522	512	2653
69...	2525	491	498	328	183	558	547	2517
70...	2401	516	543	298	177	600	587	2379
71...	2277	589	603	262	171	653	632	2239
72...	2143	682	681	233	165	708	685	2097
73...	1997	781	770	207	159	768	743	1953
74...	1841	902	860	183	154	841	807	1808
75...	1675	955	941	162	149	920	878	1662
76...	1515	1030	1006	143	144	1007	960	1516
77...	1359	1074	1062	126	139	1103	1042	1371
78...	1213	1089	1115	111	134	1207	1131	1228
79...	1081	1184	1177	98	128	1306	1219	1089
80...	953	122	124	87	123	141	130	956
81...	837	134	133	78	117	150	139	832
82...	725	141	141	70	113	160	148	716
83...	623	151	151	63	107	170	156	610
84...	529	159	163	56	101	180	165	515
85...	445	175	177	50	96	192	173	430
86...	367	193	191	45	90	200	183	356
87...	296	216	203	40	84	210	190	291
88...	232	226	220	35	78	223	199	235
89...	181	215	238	30	72	240	208	188
90...	142	261	251	26	65	250	218	149
91...	105	286	259	21	54	257	225	116
92...	75	280	267	17	45	265	233	90
93...	54	259	261	13	35	269	241	69
94...	40	250	247	10	28	280	247	52
95...	30	233	236	7	21	300	256	39
96...	23	217	227	6	18	300	274	29
97...	18	222	214	4	13	325	304	21
98...	14	214	212	3	11	365	330	15
99...	11	182	223	2	10	500	402	10
100...	9	222	251	2	10	500	480	6
101...	7	287	314	1	10	1000	666	3
102...	5	400	442	..	..	....	1000	1
103...	3	667	643	..	..	....	....	..
104...	1	1000	1000	..	..	....	....	..

Art. II.—GEOGRAPHICAL DISCOVERY IN EASTERN AFRICA;

WITH REFERENCE TO ITS COMMERCE AND THE INFLUENCE WHICH THE PROPOSED SUEZ CANAL IS LIKELY TO EXERCISE UPON ITS DEVELOPMENT; AND A SKETCH OF RECENT POLITICAL EVENTS IN ABESSINIA AND MADAGASCAR.

At no time has discovery taken such rapid strides towards unfolding the geography of Inner Africa as within the last few years. Livingstone, Barth, Galton, Andersson, and many others, have not only traversed large tracts of country previously left blank on our maps, or at the most filled up by rivers, lakes, and mountain-chains, laid down from imperfect native reports, but have embodied their results in maps, based upon astronomical observations, or a careful estimate of distances.

Eastern Africa has taken its due share in the general progress, and from the peculiar interest attaching to its geographical features, and the comparative safety with which travelers may proceed inland, we may confidently expect it soon to be one of those portions of the continent most accurately known to us. Its coast-line had been surveyed between the years 1822–6, by Capt. W. F. Owen and his officers, a survey to which but immaterial additions were made by the French expedition under M. Guillain, (1847–8.) Lieutenant Cristopher, in 1844, visited Giredi and some other places on the lower Haines River, but M. Maizan, a French officer, who in the same year attempted to penetrate into the interior, was slain by the natives at three days' journey from the coast.*

The inland exploration of that part of Eastern Africa may be dated from the time when Dr. Krapf, of the Church Missionary Society, established himself at Rabbai Mpia, near Mombaz, 1844, a place which subsequently became the starting-point for several journeys into the interior, undertaken by himself and fellow-laborers. Dr. Krapf visited thus Ukambani twice, in 1849 and 1851, and Fuga, the capital of Usambara, in 1848 and 1852. The Rev. J. Rebmann undertook three journeys to Jaga in 1848 and 1852, and the Rev. J. Erhardt, in 1853, proceeded to Fuga. In addition to this, Dr. Krapf explored the whole of the coast from Cape Guardafui to Cape Delgado, for objects connected with the mission. The most remarkable result obtained by these journeys is the discovery of several mountains covered by perennial snow, a discovery which can only be denied if we assume the missionaries capable of deliberately advancing false statements.† True, no astronomical observations were taken, and the routes explored have not been laid down with desirable accuracy; nevertheless, the accounts of the missionaries, from their long residence in the country and close intercourse with the natives, with whom they were able to converse in their own language, give to their accounts quite

* Henry C. Arc Angelo, in 1847, and Captain Short, in 1849, claim to have ascended the river Jub for a considerable distance. M. Guillain, who in 1847 lodged in the very room at Merka previously occupied by Angelo, heard from his host that that traveler ascended the river for a few miles merely. In fact, the lower Jub is not considered navigable at all by the Arab merchants, who carry their merchandise overland to Ganana, above which the river is navigable for a considerable distance. (See Guillain, "Documents sur l'Afrique Orientale," II., 181.)

† In an Itinerary to Kikuyu, by way of Ukambani, given by M. Guillain, (II., 239,) we find a very high mountain in Kikuyu described as "being of a white color, wooded at the foot, but entirely barren near its summit." This is undoubtedly Krapf's Kenia, Kegnia, or Kirenia. Mr. Cooley, in his "Inner Africa Laid Open," ridicules the idea of the Kegnia and the Kilimanjaro being covered with perennial snow, whether on sufficient grounds or no is at best but doubtful.

an independent value. Dr. Krapf places Yata in Ukambani at a distance of 270 miles from the coast. He spent fifteen days on the average in traveling to or from that place, and on his return journey, in 1851, only ten days. In the latter he would consequently have traveled at the rate of twenty-seven miles a day, or at least thirty-five miles of actual traveling, the above distance being given in a direct line. Assuming Dr. Krapf to have traveled at the rate of ten miles a day, (on his last journey fifteen miles,) Yata would be 150 miles from the coast.. At Kitui, a village four days in a northerly direction from Yata, the snow mountain Kenia could be seen from an eminence during clear weather, and its distance would appear to be at least 100 miles; the Kilimanjaro could be seen from the same locality, towards the S. W. The approximate position of these two mountains we believe to be as follows:—

Kenia.....	1° 45′ S. lat.	36° E. long.
Kilimanjaro.....	3° 30′ "	37° "

In addition to the valuable information afforded by the missionaries with regard to the countries which came under their personal observation, we are indebted to them for a mass of information about the interior, collected from native sources, which the Rev. J. Rebmann and Rev. J. Erhardt incorporated in a map, first published in the proceedings of the Royal Geographical Society, 1856, and the most striking feature of which is a vast lake of a curious shape, extending through twelve degrees of latitude. Dr. Krapf has now published some further information with respect to the countries east of Ukambani, in his work on Eastern Africa.

The maps of the missionaries, though open to criticism, as are more or less all compilations of this kind, at once attracted the attention of geographers, and the Royal Geographical Society, aided by government, resolved to send out an expedition to test the accuracy of the data furnished. Major R. Burton, a man well experienced in Eastern travel, and favorably known by his "Pilgrimage to Medina and Mekka," and a visit to Harar, was intrusted with its direction, and having been joined by Captain Speke, his former companion, set out for Zanzibar, where he arrived on the 20th of December, 1857. After a visit to the Rev. J. Rebmann, at his missionary station at Kisuludini, and a preparatory journey to Fuga, the capital of Usambara, they set out for the interior on the 26th June, 1858. Traversing a mountainous tract, which begins about a hundred miles from the coast, and nowhere exceeds 6,000 feet in height, they reached the great inner plateau of Uniamesi, which at Kazeh, an Arab trading post, has an elevation of 3,400 feet. Thence westward the country forms a declined plane, and the elevation of the lake of Takanyika, or Uniamesi, which our travelers reached the 3d of March, is 1,843 feet. The lake extends for about 300 miles to the north of Ujiji, as ascertained by actual examination, and is enclosed there by a crescent-shaped chain of mountains, which Captain Speke looks upon as identical with the *Lunæ Montes*, Ptolemy's Mountains of the Moon. This assumption we believe, however, to be premature; Ptolemy had no personal knowledge of the countries of the Upper Nile, and can scarcely be supposed to have been acquainted with the crescent-like shape of the mountains in question. We would therefore rather, with Dr. Beke, claim this appellation for the snow-capped Kenia and Kilimanjaro, as far as we know the highest mountains in that part of Africa. According to native

information, the lake extends towards the south 8° of latitude, where it terminates, communicating perhaps, during the rainy season, with the Rukwe Lake.* The information obtained by Dr. Livingstone from an Arab merchant, whom he met on the Liambye, tallies satisfactorily with that obtained by Captains Burton and Speke. That merchant skirted the southern shore of the lake on coming from the coast, and places Cazembe's Town† at ten days' journey to the S. W. of it. A Suahili whom Dr. Beke had interrogated at Mauritius (*vide* "Athenæum," 12th July, 1856,) gave similar information, and describes the Taganyika as being distinct from the more southerly Niassa. To our knowledge, however, not a single instance of either Arab or native having navigated such a lake lengthways has been adduced in support of this assumption.

On their return from the Taganyika, Capt. Burton remained at Kazeh, to recruit his failing health, whilst Captain Speke proceeded northward to explore the Victoria Nyanza, Lake Victoria, or Lake of Ukerewe, which he reached on the 3d of August, and ascertained to be 3,738 feet above the sea. A river is said to debouch from its northern extremity, and to flow into the Nile. Assuming the lake to extend to 1° north latitude, and the development of the river to be equal to twice the direct distance to Gondokoro, the altitude of which is 1,606 feet.‡ such a river would have a fall of five-and-a-half feet per mile, a current which would render it quite impracticable for navigation.

The first information regarding the Upper Nile, or Bahr el Abiad, is due to the three expeditions sent out by the Egyptian government, between 1839 and 1842. Private travelers, such as MM. Brun, Rollet, Malzac, and Vaysieres, but especially the Roman Catholic missionaries at Gondokoro since 1849, have considerably added to our knowledge. The visit of a traveler capable of making reliable astronomical observations is, however, urgently required to clear up the doubts regarding the true position of the Upper Nile. The position of Janker Island is variously stated by different observers:—

Selim Bimbashi, commander of second Egyptian Expedition	4° 35′ N. lat.	32° 25′ E. long.
M. d'Arnaud, member of two Egyptian Expedit'ns	4° 42′ N. lat.	31° 38′ E. long.
M. Knoblecher, Roman Catholic missionary.....	4° 37. N. lat.	28° 40′ E. long.

Unfortunately, the final results alone of M. Knoblecher's observations have been given, and we are not, therefore, in a position to judge of the degree of confidence to be attached to them. The information obtained by Captain Speke regarding the Kibiri River, (the Bahr el Abiad, above Janker Island, is called Tibiri, spelt Tubiri by the French,) which is said

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* Perhaps identical with the Kalagwe, mentioned by Livingstone as communicating with the Taganyika.

† The approximate position of Cazembe's Town (Lunda or Lucenda) is known from the expeditions of Lacerda (1792) and Monteiro, and Jamitto (1832, see page 468.) The former made astronomical observations at Chama, (Moiro Achinto,) a village 150 miles to the S.E of it. The Roapura River, which passes close to it, according to Dr. Livingstone, enters the Liambye, and the elevation of Cazembe's Town could not therefore be assumed at less than 5,000 feet, or more than 8,000 feet above the Taganyika.

‡ The altitude of Gondokoro has been deduced from barometrical observations by Dovyak, continued during thirteen months. The same observer makes Khartum 882 feet above the sea; according to Russeger, it is 1,525 feet, and according to Captain Peel, 1,286 feet

to flow towards the northwest on leaving the Nyanza, would speak in favor of the greater accuracy of M. Knoblecher's observations.

[For proceedings of the Roman Catholic missionaries on the Upper Nile, see the "Annual Reports of the Society of Mary for Promoting Catholic Missions in Central Africa," Vienna, since 1851. MM. Dovyak's and Knoblecher's observations have been reprinted from the "Annals of the I. R. Institute for Meteorology and Terrestrial Magnetism," Vienna, since 1859. Other Missionaries established in Abessinia (as Leon des Avanchers and Miani have published some information in the Journal of the Paris Geographical Society.]

After Captain Speke's return from the Nyanza, both travelers went back to Zanzibar, whence they embarked for Europe in March, 1859. Captain Speke is about to proceed again to the scene of his late discoveries, accompanied by Captain Grant.*

In the mean time a German traveler, Dr. A. Roscher, has made several attempts to penetrate into the interior, but hitherto his endeavors have been foiled by almost constant illness. In February, 1859, he made a journey by land along the coast from opposite Zanzibar to Kiloa, examining on the way the lower course of the Lufiji. It was his intention to proceed from Kiloa to Lake Niassi, but in October he had not yet left the coast, and the Arabs refused to take him inland, fearing he might die.

The Niassi or Nyanja, by older authorities called Lake of the Maravi, from a tribe occupying its western shore, was laid down on Portuguese maps as early as 1546 and 1623. In 1518, even, a large lake in the interior is mentioned by the Spaniard Fernandez de Enciso. Manoel Godinho, in his travels to India, in 1663, gives some more precise information, obtained from a Portuguese who had actually visited the country. He places the Southern extremity of the lake under 15° 50′ S. lat., and the river Zachaf (Shire) connects it with the Zambezi below Sena. Gamitto (1831) states the lake to have a breadth of eighteen Portuguese miles, (thirty-three English,) but owing to the strong current it took two or three days to cross it, the canoes being pushed along by poles. According to him, the Shire or Little Nyanja had no communication with the lake. Dr. Livingstone, in his "Missionary Travels in Southern Africa," tells us of a Senhor Candido, long a resident of Tete, who had visited the Nyanja lake. Traveling through the country of the Maravi, that gentleman came upon the lake in the country of the Chiva. It took thirty-six hours to cross the lake to the country of the Mujao (Wahiao.) In the middle of its southern end is a mountain island, called Murombo or Murombola, *i. e.*, "where the waters divide." Of two rivers which leave the lake, one is the Shire, and enters the Zambezi, the other, he says, flows towards the sea under another name.† Similar information was given to Captain Bedingfield (1858) by Colonel Nunes, at Quillimane, who considered, however, the Nyanja as a chain of lakes.

From native sources we have obtained a number of routes leading to the lake, from Kiloa, Kisanga, and Mozambique. From Kiloa the distance is stated at from thirty to sixty days' journey, from Mozambique

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* Major Burton's account of the expedition is in the press. In the meantime we refer for further details to "Blackwood's Magazine," (Feb. to May, 1858, and Sept. to Nov., 1859,) and to vol. xviii. of the "Journal of the Royal Geographical Society."

† Both Leon des Avanchers and Dr. Krapf were told that the river Ruvuma took its rise from the large inland lake.

at thirty days. All routes agree in traversing near the lake the country of the Mujao or Wahiao, (Hiao,) and several pass through Lukelingo, (Keringo,) the capital of that country. At the southernmost ferry, persons on the opposite sides can speak with each other, and it was probably here where Silva Porto crossed in 1854. At Mjenga, a little further north, the opposite shore can just be seen. Opposite to Moalo is a mountain Island, called Mbaazura on Erhardt and Rebmann's map, possibly the Murombo island of Senhor Candido. At Gnombo (Ngombo) the opposite shore only appears after three hours' rowing, and still further north the passage of the lake requires from two to three days. Nothing reliable is known regarding the extent of the lake further north; the missionaries and Mr. Cooley believe it to communicate with the Taganyika or Lake of Uniamesi; Captains Burton and Speke think that it terminates at about 10° S. lat., and Mr. MacQueen ("Proceed. R. G. S.," vol iv., No. i.) looks upon the Nyanja as a large river, the head stream of which is a river passing near Cazambe's Town.

These various conjectures we may confidently expect to see cleared up at an early date, by the labors of that indefatigable traveler, Dr. Livingstone. That gentleman returned in 1858 to the Zambezi in the character of British Consul, and after a minute examination of the river up to the Kabrabesa rapids, he ascended the Shire, and, leaving the steamer at 16° 2′ S. lat., continued his journey by land to the Shirwa Lake, the existence of which had not hitherto been known to Europeans. This lake has an elevation of 2,000 feet; it is surrounded by mountains, and said to be separated from the Nyanja or Nyenyesi (Star Lake) by a narrow strip of land only six miles wide; its waters are bitter, but drinkable. Later in the year Dr. Livingstone traced the Shire River to the point where it flows from the Lake Nyenyesi, (Nyanja or Niasse,) 14° 23′ S. lat., 35° 30′ E. long. From that point the lake appeared to stretch towards the N.N.W., and upon its horizon appeared an island, which may be identical with the mountain island mentioned above. According to native testimony the lake subsequently turns towards the sea.*

COMMERCE OF AFRICA.

The geographical configuration of Africa is not favorable to the development of commerce. Few rivers are navigable from the coast, and even those which are, are only so during part of the year. There are not many good harbors; the climate along the coast is inimical to European constitutions, and moreover, the continent is split up into innumerable independent communities, almost constantly at war with each other, and offering little security to the acquisition of property or encouragement to enterprise.

We need not, therefore, be surprised to find that the whole commerce of that vast continent does not exceed in amount that carried on by Hamburg alone. In the following table we have attempted to give a statement of this commerce, as far as the custom-house returns of the various seafaring nations enabled us to do this:—

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* Dr. Krapf was told at Kilwa that the lake might be reached in ten days, thus corroborating the information obtained by Livingstone; for in order to reach its southern extremity in that time, a daily journey of some forty miles in a direct line would be required.

IMPORTS.

To	Northern Africa.*	African Islands.	Cape and Natal.	East and West Coasts.	Total.
United Kingdom.....	£2,500,000	£1,600,000	£1,463,000	£1,900,000	£7,463,000
France	2,742,000	1,300,000	.....	900,000	4,942,000
Spain, Portugal, and Mediterra'n countries	1,600,000	45,000	.....	56,000	1,701,000
Remainder of Europe..	43,000	92,000	149,000	161,000	445,000
America.....	10,000	52,000	185,000	305,000	552,000
British India.....	.....	156,000	51,000	225,000	432,000
Remainder of Asia....	.....	100,000	6,000	300,000	406,000
Australasia (British) ..	.....	500,000	12,000	.....	512,000
Total.....	6,895,000	3,845,000	1,866,000	3,847,000	16,453,000

EXPORTS.

United Kingdom.....	£2,104,000	£900,000	£2,041,000	£970,000	£6,015,000
France	5,212,000	1,000,000	.....	786,000	6,998,000
Spain, Portugal, and Mediterra'n countries	1,100,000	16,000	8,000	152,000	1,276,000
Remainder of Europe..	63,000	43,000	84,000	46,000	236,000
America.....	80,000	95,000	305,000	580,000	1,060,000
British India.....	.....	210,000	77,000	120,000	407,000
Remainder of Asia....	.....	700,000	61,000	300,000	1,061,000
Australasia (British) ..	.....	400,000	15,000	.....	415,000
Total.....	8,559,000	3,364,000	2,591,000	2,954,000	17,468,000

Assuming the population of Africa to be 150,000,000, the exports would average 2s. per head; in Great Britain they amount to 80s., in the United States to 42s., in France to 45s., and in Russia to 7s. But even this amount of 2s., small though it be, would give an exaggerated idea of the proportionate exports of Africa. For northern Africa the exports amount to 7s. per head of the population, for the African Islands to 96s., for Cape Colony and Natal to 75s., but for the whole west and east coast, including Madagascar, to 9d. only.

The materials at our disposition have not enabled us to separate the commerce of the west coast from that of the east; one-third, perhaps, of the total may appertain to the latter. At all events, the direct exports to Europe are trifling; France and the Hanse Towns take the largest share; the Americans carry on a considerable trade, and Great Britain indirectly takes part in the commercial movement through British India. The east coast of Africa in many respects is preferable to the west coast; the climate is superior, and fevers scarcely ever prove fatal; there are many good harbors, and a great part of the coast is in the hands of regular governments. The chief drawback, however, is to be looked for in the greater distance from Europe; for, while a sailing vessel may reach the coast of Guinea in fifty days from Liverpool, it takes ninety days to get to Zanzibar. Nor would the opening of the Suez Canal, supposing that scheme capable of being carried out, materially shorten the passage to Zanzibar as regards sailing vessels. The following table shows the average passage in days from Southampton, by way of the Isthmus of Suez, and round the Cape of Good Hope:—

* Transit via Suez (chiefly specie) not included. The French exports to Northern Africa include £4,620,000 to Algeria

To or from Southampton.	Round the Cape. Distance in miles.	Average passage. Screw steamer.	Sailing vessels. Out.	Home.	By way of Suez. Distance in miles.	Average passage. Screw steamer.	Sailing vessels. Out.	Home.
Aden.....	10,300	*56	*99 [70]	*108 ...	4,100	19	*57	*67
Bombay....	10,300	*56	107 [76]	104[83]	6,000	26	*76	*85
Calcutta....	11,200	*60	110 [88]	112[82]	7,600	36	*93	*103
Hong Kong.	12,800	*68	134[114]	120[99]	9,800	42	*124	*122
Melbourne..	11,500	59	82 [61]	83[61]	11,000	53	*112	*114
Mauritius ..	8,100	*48	79 [60]	88[61]	6,700	30	*80	*90
Natal.....	6,700	39	63 [48]	72[46]	8,000	*36	*92	*102
Zanzibar....	8,500	*48	81 [66]	90[64]	6,200	*28	*74	*84

The above table has been compiled chiefly from the "passage table" in the "Meteorological Papers," published by authority of the Board of Trade, No. 2, 1858. The average passage to Alexandria, 2,960 miles, takes 35 days; the quickest has been made in 23 days; the passage home requires on an average 45 days, or at the least 31 days. We have allowed one day for steamers, and two days for sailing vessels, to reach Suez from Alexandria. The navigation of the Red Sea being rather difficult for sailing vessels, we have assumed the voyage from Suez to Aden, 1,300 miles, to occupy 20 days, but believe this to be rather below what would be required ordinarily. The passage from Kossier to Jedda, for instance, requires from 10 to 20 days, and considerably more in Arab boats. Beyond Aden we assumed 90 to 100 miles as the daily progress of a sailing vessel, an estimate entirely in favor of the Suez route. With regard to steam vessels, the saving in point of time is very considerable; but on account of their small stowage room, and the expense of fuel, their use is restricted to the carrying of mails, of passengers, specie, and of few articles of merchandise of small bulk, and for that purpose the railway between Suez and Alexandria suffices. In the trade with Aden, Bombay, and Calcutta, sailing vessels by the canal *in nubibus* would have an advantage of 40, 20, or 12 days respectively; but, we doubt whether this would enable them to pay the proposed passage dues, of 10 francs per ton. Hong Kong, (and the whole of Eastern Asia,) Mauritius, and Zanzibar would not gain in point of time; Melbourne and Natal would actually lose.

Mr. MacLeod, late H. B. M. Consul at Mozambique, proposes the establishment of a line of steamers in connection with Aden, and touching at the principal places along the east coast, down to Natal. The time required to reach Natal, either by way of Suez or the Cape, being nearly alike, (36 and 39 days respectively,) the present line to the Cape, extended to Natal, might be profitably maintained. Simultaneously, consular officers would have to be appointed to the principal ports. The facilities for postal intercourse with Europe, thus offered to merchants settled at Zanzibar and elsewhere, could not fail to be highly conducive to the growth of legitimate commerce, and the slave trade, which is still being carried on actively, might thus be gradually and effectually checked.

Our space will not permit us to enter into details regarding imports and exports, and we refer regarding these to the work of M. Guillain, and to Mr. MacLeod's "Travels in Eastern Africa." The latter gentleman most kindly volunteers to supply merchants with any particulars they may require regarding suitable cargoes, etc.

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* Based partly on estimates. The figures in brackets [ ] indicate the quickest passage on record.

POLITICAL EVENTS IN ABESSINIA AND MADAGASCAR.

Eastern Africa, unlike the west coast, is for the greater part occupied or claimed by foreign powers, and the native States, excepting Abessinia and Madagascar, are of little or no importance. The Turks occupy several places on the Red Sea, the principal of which is Massowa, and appoint the governor of Zeila. The dominions of the Imam of Zanzibar include the whole of the coast and neighboring islands, from about 5° N. latitude to beyond Cape Delgado; many parts of the coast are, however, virtually independent. The Portuguese claim extends from Cape Delgado to Delgado Bay; but they occupy in reality only the country along the lower Zambezi, and some isolated towns along the coast. Great Britain possesses Perim, a small island at the entrance of the Red Sea; the island Musha, opposite Tajurra, the natural outlet for the commerce of Shoa and Southern Abessinia; the island of Socotra, not at present occupied; the southern half of Delgado Bay, and the Bay of Santa Lucia, on the coast of Kaffraria; and lastly, Natal, a country destined, from its favorable position and climate, to eclipse Cape Colony as an agricultural settlement. The French have lately acquired the port of Zula, south of Massowa; they also claim the whole of Madagascar, but at present hold but a few insignificant islands on its shore, and Mayotte, one of the Comoros.

Of Massowa, Abessinia, and Madagascar we shall speak more in detail under separate headings; but, before doing so, we would refer in a few words to the political bearing of the Suez Canal scheme. Engineers of eminence and respectability* have pronounced against the practicability of such a canal. Nevertheless, the enterprise is being persevered in under the auspices of the French government, or rather, the isthmus has been occupied within the last few weeks by a party of armed ouvriers. It is the avowed design of France to found in the Eastern Sea an empire to rival, if not to eclipse, British India, of which empire Madagascar is to be the center. Across the Isthmus of Suez leads the shortest route from Southern France to Madagascar (and India;) its possession by a power desirous to extend her dominions in that quarter, and capable of availing herself of its advantages, would therefore be of the utmost consequence. The mere fact of the isthmus being part of the Turkish empire, or of Egypt, would not deter France from occupying it; for scruples of conscience are not allowed by that nation to interfere with political "ideas." Zula has been chosen as the second station on the route to Madagascar, and while the occupation of Suez may at will furnish a pretext for seizing upon Egypt, that of Zula may open Abessinia to French conquest. Fortunately there is a power which can put a veto upon those plans of aggrandizement in northeastern Africa, and that power is Great Britain. Gibraltar, Malta, Perim,* and Aden, form a magnificent line of military and naval stations on the route to India, and perfectly command it. Only after having converted the last three into French strong-

* We say "respectability" advisedly. No doubt many supporters of the scheme are sincere in believing it feasible. Such, however, can scarcely be the opinion of its actual promoters, otherwise they would have been more conscientious with regard to statements made, or facts omitted.

* Perim at present is destined merely to bear a lighthouse. Properly fortified, it would command the entrance to the Red Sea even more effectually than Gibraltar does that to the Mediterranean.

holds, and thus striking a decisive blow at the naval supremacy of Great Britain, could France ever hope to carry out her designs.

MASSOWA AND ABESSINIA.

Massowa in former times constituted part of the Abessinian Empire, and was governed by the Baharnagash, or Prince of the Sea, who had his residence at Dixan. It was occupied at the commencement of the 17th century by the Turks, in whose possession it has remained ever since. The Belaw, who inhabit the island and neighboring coast, were the first to embrace Islamism, and from amongst them the Pasha of Jidda nominated as vice-governor of the main-land, the "naib," *i. e.*, substitute, a dignity since confined to the members of one family. The naibs, by stratagem or force, acquired a considerable influence over the neighboring tribes, and their authority was recognized by the Shoho, Beduan, and Habab. The two former, being the earliest subjects, merely promised a contingent in time of war. The naibs also successfully restricted the commerce of Abessinia to Massowa; and when, about fifty years ago, caravans were known to frequent Ait, a port situated further south, war was made upon that place, and its chief compelled to swear upon the Koran not to receive any more caravans.

Repeated complaints of the arbitrary conduct of the naib at last induced the Pasha of Jidda to give orders for his deposition. The governor of Massowa, with his Turkish troops, crossed over to Arkiko, the residence of the naib, destroyed that place, and built a fort which he garrisoned with 200 men. The naibs subsequently might have regained their former influence, for the governor's conduct towards the Shohos and Belaw, from whom he demanded taxes, was by no means judicious; family disputes, however, prevented this. In 1853 the Shohos and Belaw were in open rebellion, but they at once returned to their former allegiance when, towards the close of 1854, a new naib arrived from Jidda, where he had successfully prosecuted the claims of his branch of the family to that dignity. He was invested with plenary powers as far as the main-land was concerned, and thus rendered almost independent of the Turkish Pasha, who has since 1850 resided at Massowa.

At the present time the Turks have a garrison of 250 regulars and 150 Bashi-bozuks at Massowa; 50 Bashi-bozuks occupy the fort at Arkiko, and since July, 1857, 27 have occupied Ait.

The claim of Turkey to the west coast of the Red Sea, and specially to that part of the coast extending between Massowa and Ait, however slight her authority, appears to us to be clearly established by the mere fact of her nominating the naibs, and this for a period of nearly 300 years. Abessinia still prefers a claim to these territories, but has never been able to expel the Turks, and as late as 1848, when Ubie, the Regent of Tigre, attempted to do so, and sent an army of 20,000 men against Arkiko, he was compelled to retire, after having burnt a few villages and made a raid upon some cattle. Still, the claim of Abessinia to the coast offering the sole maritime outlet to her commerce, and formerly part of her territory, might be allowed, were she in a position to enforce it. It must, however, cause surprise to hear of France, a European power, at amity with Turkey, purchasing from the Regent of Tigre, who never yielded the slightest authority there, the port of Ait, and subsequently that of Zula.

The endeavors of France to gain a footing upon the Red Sea may be

traced back for a number of years. M. Combes, who in 1835 visited Adoa, purchased from Ubie, the Regent of Tigre, the port of Ait, for £300, obviously for the purpose of attracting to it the commerce of Abessinia, then, as now, carried on through Massowa. A French vessel sent there by a Bordeaux house was not, however, able to open commercial intercourse; they neither found purchasers for their ill-assorted wares, nor the expected caravans with ivory and gold dust. For a long time afterwards French interests in Abessinia were intrusted to the Romish missionaries, and to a consul, who took his residence at Massowa, a port with which France had no intercourse whatever. In 1840 the naib ceded to the consul a small plot of ground at Mokullu, close to Massowa, upon which the missionaries built a chapel in 1848, and they also extended their operations to a Christian tribe of the Shohos, dwelling above Zula, and to the Bogos to the north of Abessinia. The consul gave the Turkish governor much trouble, and has of late insisted upon considering the main-land as independent. When Kassai had succeeded in making himself master of Abessinia, and a prospect of a stable government was at hand, France, who in this most probably saw the downfall of her own schemes, sowed disunion by rendering her support to Ubie, and subsequently to Yeh, the opponents of Kassai in Tigre. At the close of 1857, the French consul, accompanied by a priest, traveled to Adoa for the purpose of inducing Yeh to occupy the coast. The result of this journey has perhaps been the so-called cession of Zula, a port situated upon Annesley Bay, and only about twenty-five miles south of Massowa.* Zula formerly was a place of great commercial importance; its trade, however, has been removed to Massowa, which is more favorably situated, and at the present day it merely consists of a few huts of fishermen and camel-drivers. Its importance as a naval station is but slight, and the assertion of French writers that it commands the route to Aden is absurd, cut off, as the place would be, from receiving any support whatever, in case of hostilities with a naval power like Great Britain, holding in Aden and Perim the keys to the Red Sea. It might, however, serve as a stepping-stone to further conquests in Abessinia; but is France in a position to find funds for the conquest of a second Algeria †?

Abessinia has for a number of years been a prey to intestine wars, which we had hoped to see terminated by the usurpation of the throne by Kassai, whose energy may even now enable him to gain the object of his desires—the re-establishment of the Abessinian Empire. Kassai is a native of Kuara, a small province of Western Abessinia, the limits of which had been extended by his father and elder brother, Komfu, to the Abai and Lake Tsana. He wrested by conquest the province of Dembia from the mother of Ras Ali, governor of Gondar, thus carrying his boundary to within a few miles of the capital. His desire of independence, and refusal to pay the customary tribute, soon brought him into hostile collision with the Ras, and the latter, in 1850, conferred the greater part of the provinces held by Kassai upon Buru Goshu, Prince of Gojam, a more loyal satrap. Kassai, with his scattered forces, retired before the large army sent against him, to Kuara,

* According to French papers this cession was made by Ubie, (Oubieh.) Our information regarding late political events in Abessinia is very fragmentary; we nevertheless have reason to suppose that Ubie has left the field of political action.

† The revenues of Algeria at the present day cover the expenses of the civil administration, (£900,000 to £900,000;) the maintenance of the military establishment requires, however, an outlay of about £2206,000 more.

where he made active preparations to reconquer his lost territories. When his adversary had quietly settled down in Dembea, he broke forth from his mountains and defeated him in a sanguinary battle near the lake, Buru Goshu himself being amongst the slain. Ras Ali fled from Gondar, but, aided by Ubie of Tigre, and other Abessinian princes, collected a large force; but he was also defeated in 1853, near Gorada, and obliged to seek safety amongst his Mohammedan relations. Kassai next turned his victorious arms against Ubie, whom he defeated and took prisoner in 1855;* he then appointed a relation of Sabagadis, the former rightful sovereign of Tigre, as vice-governor; and by consenting to expel the Romish priests, who had greatly interfered with the internal management of the Church, he induced the Abuna to remove from Adoa to Gondar, and to annoint him as Theodore, (Tadruss,) Negus or Emperor of the Abessinian Empire. In 1856, Shoa was added to the dominions of Kassai. He was not, however, long to enjoy his conquests.

We glean from disjointed information obtained subsequently, that fresh opponents arose against Kassai in Tigre, and at the close of 1858 the fate of the empire had not yet been decided by battle. It is, however, to be hoped, in the interests of humanity, that Kassai, who is still a young man, may triumph over his enemies, and thus carry out the reforms he contemplated.†

MADAGASCAR.

Madagascar first attracted the attention of the French in 1642, when Louis XIII. granted the island to the Companie de l'Orient. The first vessels arrived in 1643, and possession was taken of the Island Ste. Marie and of Antongil Bay, and a small colony established at Ste. Luce, which soon afterwards was removed to Fort Dauphin. The new settlement was but badly supported by France; the governors treated the natives with execrable cruelty, and even sold them to Dutch slave-dealers, conduct which brought about the massacre of the French colonists when celebrating a midnight mass on Christmas eve, 1672. Only a few made their escape to the Island of Bourbon.

The next attempt at settlement was directed towards the Island Ste. Marie in 1750; but conduct similar to that pursued at Fort Dauphin caused a second massacre, four years after the arrival of the colonists.

Fort Dauphin was again temporarily occupied in 1768, but up to 1774, when Count Benyovski arrived with his expedition in Antongil Bay, France was represented on the island merely by a few independent traders. The Count, having lost most of his people in battle or by disease, returned to France to vindicate his conduct. The government did not, however, think fit to intrust him with the conduct of a second expedition, and, stung with disappointment, he went to the United States, where he collected a band of adventurers, with whom he landed in Madagascar with a view of conquering that island on his own account, but fell in defense of a small fort, in 1786, against a French force sent against him from Mauritius.

In 1810, when Great Britain took possession of Mauritius, French agents were found established at Tamatave and Foulepointe, and surrendered to the British squadron. By the treaty of Paris, of 1814, Mauritius with its

* Ubie subsequently appears to have been liberated on payment of a ransom of £10,000.

† Compare Dr. Krapf's Travels, p. 358.

dependencies was ceded to Great Britain, including, of course, any settlement which might have been made in Madagascar; France, however, subsequently refused to acknowledge this claim. In 1815 a tract of land was purchased from native chiefs at Port Luquez, and a small settlement founded, which was, however, finally abandoned in 1718, when Great Britain acknowledged the claim of Radama to the whole island.

The French, however, continued their efforts at colonization; in 1819 they reoccupied Ste. Marie and Tintingue, and sent a few men to garrison Fort Dauphin; native chiefs in 1821 ceded the coast between Fenerife and Antongil Bay. Radama protested against this aggression, and in 1822 expelled the French from the main-land, and occupied Fort Dauphin in 1825.

In 1829 another expedition was sent to Madagascar; the French occupied Tintingue, burnt Tamatave, but were ingloriously defeated by a much inferior number of Hovas at Foulepointe. The former place was again evacuated in 1831, and up to the present day the French settlements on the east coast have been restricted to the small Island of Ste. Marie.

Seeing their efforts in this quarter unavailing, they now directed their attention to the west coast. In 1840 they procured from native chiefs the cession of Nossibe and some neighboring islands, together with the mainland facing them; they were not, however, able to prevent the Hovas from occupying the latter, nor did they resent their destroying, in 1856, a French fort built near Bavatuka Bay, thirty miles from Nossibe, where a French company worked some coal-mines, and from which they carried away five guns as trophies of victory. The superintendent of the coal-mine, and others, were killed, and the laborers, about one hundred in number, taken prisoners to Tananarivo.

In 1841 the French also took possession of Mayotte, one of the Comoro Islands, a position equally useless as a naval station or commercial entrepôt.*

A more daring attempt upon Madagascar has been made recently, and reflects little credit upon the government which sanctioned it. M. Lambert, in 1855, visited Tananarivo avowedly for commercial purposes, but obviously with the object of organizing a conspiracy in conjunction with Laborde and several native chiefs. This Laborde was formerly a slave-dealer, and, at the time, Great Chamberlain at the court of Emirne. His preliminary arrangements being made, M. Lambert started for France, and after two interviews with the emperor returned to Madagascar, taking with him presents to the amount of £2,000, and accompanied by Père Jean, Apostolic Vicar of Madagascar, disguised as a trader, and by Madame Ida Pfeifer, who, we hope, was ignorant of the purport of the mission. The conspirators arrived at Tananarivo in 1857. It was their intention to depose the queen, and place upon the throne a native prince, who, in case of success, promised to acknowledge himself a vassal of France, and to introduce the Roman Catholic religion. The plot, however, was discovered, and the chief conspirators were expelled the island, and many others are supposed to have suffered death in consequence of their participation in it.†

Still more recent is the acquisition of a large tract of land near Bali Bay.

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* This island was not "ceded" by the native prince, but occupied under protest. *Vide* "Madagascar Past and Present, by a Resident." (London, 1847,) p. 222.

† *Vide* MacLeod's "Travels in Eastern Africa." Barbie de Bocage, in his work on Madagascar (Paris, 1859,) makes no mention of M. Lambert's share in this conspiracy. He merely gives an extract from the "Patrie" newspaper (p. 276,) according to which a "Catholic" party had been formed in opposition to the queen's government, and the discovery of which led to the massacre of two thousand individuals.

A French vessel, the "Marie Angelique," engaged in the so-called Free Immigration Scheme, had been plundered there by the natives, and the government agent on board of her killed. On the news of this disaster reaching Bourbon, the frigate "La Cordeliere" was at once sent to the spot; the villages in which the culpable parties were supposed to reside were destroyed; the chief of the territory, a female, was deposed, and her lands given to a neighboring chief, who, "recognizing the ancient rights of France to the territories occupied," made a cession of the whole. We do not know whether the territory thus acquired has actually been settled, but believe not.

The present state of the French settlements near Madagascar is not at all commensurate with the pains taken in their formation during the two last centuries. Ste. Marie, in 1856, had a population of 5,743 souls. The population of Nossibe, and the smaller islands in its vicinity, was 22,577 in 1856; the imports amounted to £24,000, the exports to only £5,400. Mayotte, in 1853, had 6,829 inhabitants, and its exports and imports amounted, in 1856, to £30,740. The island of Bourbon or Reunion, in 1858, had 143,600 inhabitants, amongst whom were 93,000 immigrant laborers. The imports of the island amounted to £1,333,000 in 1856, the exports to £1,187,000.

Reunion has a garrison of 1,200 European troops, a company of native sappers and miners 150 men strong, besides an organized militia of 5,000 men. The other possessions mentioned are garrisoned by some 200 Europeans and 250 Africans. None of these possess a harbor desirable as a naval station, and the loss of Mauritius, with its safe and well-defended anchorage, and unique position at almost equal distance from Aden, British India, and the Cape, could never be adequately compensated, even by their occupying the whole of Madagascar. Nor are these settlements calculated to become of importance as commercial entrepôts; the French can never hope to see Mayotte the rival of Zanzibar, though no doubt these colonies may become important by the establishment of sugar and coffee plantations. Mauritius, at the present day, depends for its supply of cattle almost exclusively upon Madagascar; for out of 8,711 head imported in 1857, 485 only came from other countries. Besides these, 6,584 cwt. of rice and a little tobacco were imported from that island, the total imports amounting to only £43,000. During the same period the value of cereals and flour imported from British India and others of our colonies amounted to £494,000. Should the French at some future period be able to stop the export trade of Madagascar, which they could only do by subjecting the whole of that island to their sway, Mauritius might draw the whole of her supply of cattle from our fast-growing colony of Natal,* and as long as Great Britain maintains her naval superiority, no fear need be entertained of that island being ever reduced by famine.

In fact, the designs of France upon Madagascar need cause no apprehension; in case of war, that island would prove a source of embarrassment rather than of strength. No doubt commercial operations might be extended, and this without prejudice to British enterprise, which will find much more profitable employment in the colonization of Natal, and ultimately of the whole of Kaffraria.

* The distance from Mauritius to Natal is about 1,740 miles. Occasionally cargoes of cattle have been imported from Mombas or Brava, a much greater distance. Hitherto Natal has not exported any cattle.

Art. III.—BRAZIL: ITS TRADE AND FINANCES.

NUMBER II.

ORIGIN OF THE ERRORS OF THE FINANCIERS OF BRAZIL.

When finally the introduction of negroes into this country from Africa had altogether ceased, the country found itself master of resources which had until then been applicable to the payment of the cost of the imported negroes. The habits of the Brazilians were, for the most part, simple in the extreme—of an exemplary frugality. It was not possible that commercial cupidity—that corrupting monster—should corrupt by a "coup de main" the well settled habits of ages. It followed as a consequence, that as there were no real or artificial necessities to absorb the product of the surplus of our exports, this came back to us in metal. Badly advised financiers, who could not probe beneath the surface, then fancied that if the country found itself master of this metal, it was because it required it as a circulating medium. There never was a more fatal error. It had come to us as merchandise in return for our surplus exportation, and unspeakable evils would have been spared to our country, if it had been preserved in its character of merchandise, and had been exported in the same form. But no! Other ideas prevailed. The government, guided by bad counsels, was induced to coin this metal, and, in this manner, to facilitate its introduction, as an active poison, into the veins of the circulation. Not content with this great evil which was inflicted upon the country, the unhappy idea of banks of issue was conceived. The coining of the metal, which should have been preserved, comparatively innocuous, in its character of merchandise, was not sufficient to appease the accursed appetite of the monster, "commercial cupidity." No! The poison was not sufficiently active, the moral and social corruption did not go on fast enough, another stimulant was required, and the Bank of Brazil arose. And we may assert that the history of the world, unless to be found in the episode in the history of Spain, at the period of the famous discoveries of gold and silver in her colonies, upon this continent, does not present another instance of a social demoralization so rapid, of a corruption of habits, sanctified by ages of duration, so alarming, as we have witnessed in Brazil since 1854; an evil which demands the most assiduous attention of every patriot, that there may be opposed in some manner a barrier to this devastating torrent, which otherwise threatens in its course the ruin of all fortunes.

Rather good negroes from the coast of Africa, for their and our happiness, in despite of all the morbid British philanthropy, which, oblivious of its own home, allows to perish of hunger its poor white brother—a slave without a master to compassionate him—and hypocrite or stolid—exposed to the ridicule of true philanthropy—weeps over the fate of our happy negro slave. Rather good negroes from the coast of Africa to cultivate our fertile fields than all the baubles of the Rua do Ouvidor, than dresses of fifteen hundred milreis for our wives, than oranges at four vintens each in a country which produces them almost spontaneously, than corn and rice, and almost everything necessary for the support of human life from the foreigner, than finally inconsiderate works of internal

improvement far beyond the legitimate forces of the country, which, disturbing the relations of society, producing a dislocation of labor, have promoted more than all else the scarcity and high prices of every description of provisions. We do not refer to these works of internal improvement as a primary cause. They are, in the first place, but effects of the violation of the simplest and most salient principles of true economy; but, in their turn, they do become very active and maleficent causes.

Sufficient would have been the influence, from which it was impossible that Brazil should escape, of the discovery of gold in California and Australia, to disturb, in a manner to cause apprehension, the frugal ideas of the Brazilians, which did them honor; *too much* the influence of the large importation of metal which followed upon the suspension of the slave trade; *how much more* is it not to be regretted that our country should have been still further poisoned, morally, by the introduction of the detestable system of banks of issue—a creature of the monster, "commercial cupidity."

We have not witnessed without great alarm, the facility with which the imperial and provincial governments have extended during these latter years, a guaranty of dividends to various works of internal improvement. In the year 1832, and some subsequent years, the State governments of the United States extended, not a guaranty of dividends, but their credit, in the form of bonds, to various enterprises, also of internal improvement; and the legislation making those grants was celebrated everywhere with bonfires and great rejoicing. Nevertheless, not more than five years had expired before several of those States found themselves in the humiliating position of bankrupts. God grant that the same thing may not occur to us in Brazil.

SOME FURTHER OBSERVATIONS UPON BANKS OF ISSUE, THEIR FORMATION, AND THE MANNER IN WHICH THEY EXERCISE AN INFLUENCE UPON THE COURSE OF TRADE.

Every commercial country, either from its own mines, if it have them, or in return for a portion of its exports, if it have no mines, there being no other currency to take its place, or perform its office, will supply itself, in the proportion of its wants for a medium of exchange, with a currency of metal. Let us suppose that a country has thus supplied itself with precisely the quantity of metal necessary to it as a medium of exchange. Then let a bank of issue be established, and a call be made for the payment by the shareholders of one million of milreis of capital. It would follow that the first effect of this operation would be to cause a scarcity of currency, by a reduction in its amount of the million paid into the coffers of the bank. The bank, however, commences business, offering to make discounts, for which there is never any lack of customers, and as soon as its discounts reach in amount the million withdrawn from circulation, the currency is returned to its normal condition, and the scarcity disappears. It is clear that thus far the bank has done nothing more than to substitute one million of its notes, or of credits upon its books, which amounts to the same thing, for one million of metal, and that the result has not changed the volume of the currency. But no bank of issue would accept a charter if it should restrict its privilege of issue simply to the amount of metal which it might receive into its cof-

fers. The bank continues to discount, either paying out its notes, or opening credits upon its books in return for the notes offered for discount, and as soon as the bank exceeds, however so little, either in the issue of its notes, or the credits it may open upon its books, the sum of the metal which it shall have withdrawn from circulation, the redundancy of the currency begins, and brings along with it an inseparable and necessary depreciation.

It was the opinion of Adam Smith, and this opinion is followed by some economists, and by the large mass of uninformed merchants, to the present day, in contempt of the most palpable experience to the contrary, that "the convertibility of the notes of banks being maintained, no inconvenience could arise from giving them an unrestricted privilege of issue," and this opinion is based upon the hypothesis, that as soon as any redundancy of the currency should exist, the notes would return upon the banks to be exchanged for metal. Those, however, who have given some attention to the subject, are convinced that this opinion is entirely erroneous and unsupported by experience. It is known that it is only after a very great disturbance of all prices, after credit has been urged to an unbridled and dangerous point of development, after the import trade has been disproportionately stimulated, whilst the export trade has been repressed and discouraged that the remedy of convertibility comes into operation, and very often the remedy is so long deferred that the patient is found in a dying condition before it is applied; and even when this extreme case—figurative of an absolute crisis or total collapse of credit —does not present itself, the patient, the remedy being applied, is found in his convalescence so debilitated, and suffers such a prostration, that, to all appearances, it would have been better to have allowed him to perish of the disease, rather than to have applied the remedy. The idea, therefore, of finding a protection a preventative against the redundancy and depreciation of the currency in the convertibility of the notes of banks of issue, is absolutely futile.

Many persons, otherwise intelligent and well informed, roundly deny the redundancy and depreciation of the currency whilst convertibility is maintained, and the foreign exchange is quoted at or above par, referring themselves to the discount market, and the equality in value of the paper and metal elements of the currency. They point, with much satisfaction, to the fact, that the discount market is not over supplied with capital; that at times there is a scarcity of money, and the rate of discount high; that for ten milreis in paper you may obtain ten milreis in metal; that the foreign exchange is maintained at or above par. Nevertheless, we run no risk of being accused of absurdity, at least by the well informed, when we assert that, at various periods, when all these phenomena have been presented amongst us, the currency was more redundant and more depreciated in reference to the actual wants of the country for a medium of exchange, based upon *legitimate prices*, than when the absence of all these phenomena was observable. The explanation of the very general error which prevails in this respect is simple. Any excess of bank issue or bank credits signifies greater facility of discounts, as well inside as outside the banks, and possibly a reduction in the rate of discount, producing, as a consequence, greater activity in all branches of trade, as well in that conducted upon cash principles, as in that done upon credit, which leads infallibly to a rise in the prices of all exchangeable commo-

dities, in some more than in others, according to their greater or less abundance, and it is not difficult to understand that a rise, trifling though it be, extended over the immense surface of all exchangeable value, will absorb, with the greatest ease, any addition which may be made to the currency, and thus absorbed it disappears, at least to the eye of the unenlightened observer. And were it possible to extend this principle "ad infinitum," as some seem to believe, there could be nothing more beautiful; we should certainly have discovered the philosopher's stone; each one of us could have a bank in our own house; labor would no longer be necessary, for man could supply all his wants with slips of paper. But unfortunately for us this is not so. Our Creator, at his good pleasure, vindicates the primary law of our nature which requires that "we shall live by the sweat of the brow;" at least he does not permit to man the violation of this law, beyond a certain point. This law is inexorable—it is the great fundamental basis of political economy; and although it be conceded to man to call into his aid certain instruments which may soften his labor, he is always compelled, sooner or later, to recognize this primary condition of his existence.

In the manner indicated, the successive additions made to the currency are absorbed, and this continues until, invited by high prices, there has been provoked an excessive importation, whilst, at the same time the export trade, from the same cause—high prices—is either suspended altogether, or greatly discouraged and restrained. When matters have reached this stage, the merchant, who has remittances to make abroad, as we have already shown, not being able to export the products of the country, finds himself obliged, against his own will, to demand metal from the banks in exchange for their notes; and the banks, the demand being made for their metal, which, as a general thing, bears no legitimate proportion to their issues and the credits on their books, becoming alarmed, begin immediately to retire their circulation, and to restrict their credits by a refusal of discounts. That violation of immutable principles which is permitted to us by the Creator, until retribution be provoked, had reached its acme.

Beyond a question the theory of banks of issue, upon which their partisans rely, is very plausible and attractive, and were it not for the injustice of permitting private individuals to appropriate to themselves the great advantages, which properly belong to the nation, arising from the exercise of a high prerogative of the national sovereignty—the issue of a paper currency being equivalent to the right of coinage—the reforms suggested by experience, which should prevent the abuses of which the system is susceptible, being adopted, it would be difficult to combat its apologists.

The partisans of banks of issue contend that they furnish a more economical and a more convenient currency than metal—more economical, because they save the wear or abrasion of a metal currency; that by the issue of paper they liberate for employment in the foreign trade of the country, all that portion of the metal which may not be deemed necessary to maintain the convertibility of their issues, by this means rendering productive a large amount of capital, which would otherwise be employed as currency, and consequently unproductive. They contend further, that the expansibility of the issue is a great advantage, as it is susceptible, from this fact, of being made to accommodate itself to the changing demand for a medium of exchange.

We shall not deny any of the claims made in behalf of banks of issue, theoretically speaking, but we are of opinion that all the advantages which are claimed for this system may be had by other agencies, without incurring that offence to the principles of justice which it involves, and which shall present greater guaranties against the abuses, which, on the part of those institutions, had condemned them, in the judgment of intelligent and reflecting men, wherever they have had an existence.

In the first place, as the issue of paper money is equivalent to the exercise of the faculty of coinage, and this belongs exclusively to the national sovereignty, we can see no good reason why the profits accruing from the substitution of paper for the metallic money of the country, should not go into the national coffers, instead of those of private individuals—the stockholders of banks of issue.

In the second place, we can see no reason why a paper currency issued by the nation, should be less economical or less convenient than when issued by banks.

In the third place, as regards the expansibility of the issue, if it could be shown that at any one time any bank of issue whatever had ever exercised this faculty in gratitude to the nation for the great privileges it had received therefrom, in the delegation of a high prerogative of sovereignty, and at a time when the public necessities most required it, then certainly this argument might have some value. But nothing of this! The expansibility certainly exists—few there are who have not suffered from the reaction which its exercise involves; but let the man appear who, in the hour of his greatest need, has not found the banks in reaction, instead of finding them prepared to exercise their faculty of expansibility. It is the general experience everywhere, that this power of expansion has been availed of for the purpose of swelling dividends, but never for the relief of the public necessities at a period of pressure. This expansibility may be of some value to the banks—this, however, is doubtful—but it is of none certainly to the public. On the contrary, the reaction always consequent upon its exercise is a source of unspeakable evils. And it is precisely the abuse of this faculty of expansibility, which has exposed the system of banks of issue to the condemnation of all who have closely studied the science of money.

THE IMPORTANCE OF MAINTAINING A CLEAR CIRCULATING MEDIUM—SOME OF THE EVILS OF DEPRECIATION.

It may be said that there is nothing which can exercise a more baneful influence upon the fortunes of a people, than that depreciation of a currency occurring cotemporaneously with the maintenance of convertibility; or arising from a sudden increase of metallic circulation disproportionate to the real wants of a country for a medium of exchange, upon the basis of legitimate prices.

The history of Spain presents a melancholy example of the evils arising from a disproportionate increase of metal. At the period of the discovery of the gold and silver mines in her colonies upon this continent, Spain, in all the relations of industrial development, in her foreign commerce, in civil liberty, was foremost amongst the nations of the earth. The influx of metal from her colonies began, her people became corrupted, her industry debilitated, every one considered himself a Fidalgo, and after passing through a very sad experience of foreign and intestine

wars, she saw her metal escape from her, notwithstanding all manner of restrictive and prohibitory laws, found herself dependent upon the industry of Great Britain and of Holland; and was finally debilitated to such a degree that the King of France was able to impose upon her a new dynasty, which occupies her throne to the present hour. Spain has never recovered from the effects of that fearful inundation of gold and silver.

Brazil, partly owing to the influence upon the prices of her products, of the discovery of gold in California and Australia; partly to the cessation of the slave trade, which left her master of large resources previously applicable to that trade; but yet more by reason of the introduction of banks of issue and banks of deposit—these latter economizing much the wants for a medium of exchange—has passed through an experience—happily, however, differing in degree—similar to that of Spain.

We have referred to the disturbance of the relations of society—to the dislocation of labor. These facts are palpable to all; but not by all are their causes known.

In our opinion, there is no doubt that those causes are all to be found in the depreciation of the standard of value.

Upon various occasions the writer has witnessed in the United States the same phenomena which have been presented recently amongst us, and proceeding from the very same causes—to wit: an unbridled expansion of the currency by banks of issue, of which, to our sorrow, we have not less than 1,500 in the United States—very high prices for the products of the country, inducing an inordinate development of luxury, and a contempt for labor; and on the part of the Southern planters, where we have from four to five millions of negro slaves, the happiest beings on the face of the earth, the application of all their labor to the cultivation of cotton, in total neglect of the planting of corn and the breeding of hogs, these—corn and pork—being the food of their negroes. The planter is so inflated with the high prices of his cotton, that he comes to consider it as a compromise of his dignity to give any thought to the planting of corn or the breeding of hogs, this being an occupation worthy only of the Yankees, (a term of contempt when applied by a son of the South to those of the North in the United States, and conveying the idea of close and avaricious.) All moves on divinely so long as the millenium of bank expansion continues, but the hour of repentance arrives. The prices of cotton decline in a most alarming manner, and the proud planter has cause most bitterly to regret his violation of the principles of true economy, in rendering himself dependent upon the *contemptible* Yankees of the North. Can we not discern in this picture the experience of our coffee planters in these latter years? How much have we not to deprecate the increase of luxury and extravagance amongst us since 1854?

But if a depreciation of the currency is to be regretted from its bearing upon the interests of the planter, how much more is it to be regretted in its influence upon the well being of the masses of a people—of the toiling masses who live from their daily wages; of the thousands of people with moderate fixed incomes, such, for instance, as public employées —officers of the army and navy; widows and orphans.

Not long since the complaint of a carpenter was related to us. "I earned formerly," said he, "one mil six hundred reis per day, and could always have some little desert upon my table. Now I earn two mil four hundred reis per day, and not even an orange can I have."

It should be observed that in these lamentable depreciations of a currency, the wages of the laborer are always the last thing to feel the change, and when ultimately his right to an increase of pay is recognized, full justice is never done him. Hence, necessarily, the discontent of the masses of a people!

In a national point of view, the depreciation of a currency—the maintenance of a clear circulating medium—is not of less importance.

The United States, by an exceptional good fortune, enjoy, so to say, a monopoly of the cultivation of cotton. There is no country that can compete with her—there is no substitute for cotton. For these reasons the United States give the law to the markets of the world in reference to cotton. Even so it will not be unprofitable to note that, although the United States furnish to the world perhaps five-sixths of all the raw cotton that is exported to other countries for consumption, her export of cotton manufactures is very insignificant, whilst, were it not for her very defective money system, she ought to supply the whole world with those manufactures.

We cannot say the same of our principal product, coffee, that we have said of cotton. Coffee, of a superior quality, is produced in many places —it is produced especially, with great facility, in the islands of the East Indies; and those islands being near to those human bee hives of continental India, where a day's labor is paid with two hundred reis of our money, and the daily food of a man a handful of rice, it is readily to be seen that Brazil is exposed to a competition, in reference to her principal product, fearful in the extreme.

It hence becomes a matter of vital importance, therefore, that, instead of seeking, by defective money systems, to increase to our planter the cost of his coffee, we should, on the contrary, strive, by all means, to reduce that cost, in order that he may present his produce in the consuming markets of the world, upon the same basis, as regards cost, with the coffees of other origin. Besides—coffee, differing from cotton, admits, being roasted and ground, of various forms of adulteration, and the higher the price, the greater the inducement to practice this adulteration. The writer has been informed by a friend in the United States, that in that country the roasting and grinding of coffee for sale has greatly increased recently, and that the adulteration in ground coffee has reached the extraordinary point of from forty to fifty per cent.

Of so much importance did the English consider the restraining of the cost of their fabrics, that they abolished the import duties upon almost all raw materials entering into their manufacture. Nor did they stop here. For, in order to reduce the cost of living to their operatives, and by this means to reduce their wages, and, by virtue of this latter reduction, to reduce also the cost of their manufactures, they did not hesitate to abolish the import duties upon all articles of food, in the face of the protest of the proprietors of the soil, a class which, until then, had exercised a colossal and pre-eminent influence in the councils of the country.

From what we have stated, the importance of controlling the cost of the products of a country will, we presume, be admitted, as well as that there is no more efficacious mode of accomplishing this object than by maintaining a dear currency.

The Dutch, perhaps the best economists in the world, so believed when,

in consequence of the discovery of gold in California and Australia, they abandoned even gold itself, which up to that time had served as the basis of their standard of value, and adopted silver, by reason of its having become relatively the scarcer metal.

Thus also believed Sir Robert Peel, when, by the reform which he introduced into the charter of the Bank of England, he limited the issues of that institution, otherwise than against a specific reserve of metal, to fourteen millions of pounds sterling.

THE PHILOSOPHY OF CRISES.

Nothing can be more certain or more manifest than that, if all the transactions amongst men were made for cash, a monetary crisis would be an impossibility. For as nothing would be due, there would be nothing to be paid. It hence follows as a natural and perfectly logical deduction, that the origin, the source whence arise all crises, is the use of credit; and as a corollary, that a crisis may manifest itself irrespectively of the money system of a country.

The writer frankly confesses that this was not his opinion until the crisis of 1857. On the contrary, he considered, until that period, the defects of money systems as the primary and only cause of crises. When, however, he saw that neither the mixed system of Peel—perfect as it was—nor the purely metallic system of Hamburg, offered any more ample guaranty against a crisis than the very defective system of the United States, it became necessary to seek elsewhere for the cause of this phenomenon, and it was in this manner that the truth, that "the origin, the source of all crises is the use of credit," was presented to him.

Some perhaps will contest, as always happens, in matters of science, the consistency of this deduction, and will say that it is not the use, but the abuse, of credit which produces crisis.

We shall not stop to argue upon this point, but shall content ourselves with the simple observation, that it rarely happens that scientific truths present themselves to us as if by intuition. Study and close investigation are necessary.

We shall not, however, deny that crisis is much aggravated by the abuse of credit, and that were it possible to confine the use of credit within the bounds of reason, a crisis never could assume those desolating proportions which we have witnessed on many occasions.

It is not to be supposed that the use of credit will ever be abandoned by commercial nations; and, this being so, no one will deny that it is of the highest importance that we should give all attention to the rendering it as little hurtful as possible; that we should seek, by all means, to modify and soften the effects of a crisis, when it does manifest itself, seeing that to prevent it altogether is not possible so long as man shall continue the use of credit.

What is the best means of preventing the abuse of credit, and to alleviate the effects of a crisis, is a subject which has deeply interested the writer since the crisis of 1857.

Having observed that the severity of a crisis is aggravated, in the extreme, by the *reaction* of all money systems known to us, as soon as panic appears—having observed, as we have just now remarked, that little or no difference, in this respect, appears to exist between the loan system of banks of issue in the United States, the perfect mixed system

of Peel, and the purely metallic system of Hamburg, we have earnestly sought a corrective against the fearful reaction of all these systems in the presence of a crisis; and with all the deference which is due, on our part, in a matter so grave, of such general interest, we shall present the result of our reflection, of our study, of our observation.

In our judgment, the reaction referred to, which is observable upon the occasion of a crisis, is attributable to one identical cause, common to all the money systems to which we have made reference, to wit, the use of metal as a circulating medium, either purely by itself alone, or conjointly with paper, as a basis of its convertibility.

Upon all occasions, and in all commercial countries, whenever a crisis manifests itself, whether proceeding from the legitimate movement of its foreign commerce, from a suspension of exports, or from a distrust of bill-drawers, there always arises a necessity for making remittances abroad, and those who have these remittances to make, either from necessity, or from a distrust of all credit, seize upon metal. It follows, as a consequence, that, if this metal be taken from a country whose circulating medium is exclusively metallic, its abstraction, especially at a period of crisis, must certainly greatly increase the severity of the pressure; and if this be so with reference to a country whose currency is exclusively metallic, and where the diminution in the volume of the currency is limited to the sum only which is actually abstracted, how much greater must be the impression in a country which sustains a paper circulation of three, four, five, or six to one of metallic basis. The abstraction of one in metal involves the contraction of three, four, five, or six of the paper circulation, in order that the equilibrium between the paper and metal may be maintained, and it is readily to be seen how desolating must be such a contraction, always sudden, in its influence upon every interest. It produces necessarily such a collapse of all prices, that the man who retires to sleep in plenty may awake a beggar.

We ask, if in these reflections there may not be found quite enough to interest the heart of every man who possesses any sympathy with his fellowmen?

The whole evil to which we have referred proceeds, in our judgement, from the double character of metal. It is, being coined, at the same time money and merchandise; and, in our opinion, it is just this double nature which coined metal may hold, that renders it unfit to perform the office of a circulating medium.

We think, therefore, that we have found a guaranty against that fearful reaction of money systems, whether mixed or purely metallic, observable at the period of a crisis, in the *absolute divorce* of paper and metal.

Let the circulating medium be exclusively of paper, without any dependence upon metal; let this paper be issued by the government under the guaranty of the nation; let its issue be surrounded by every possible solemnity; let the penalties against the abuse of the issue be severe, even embracing the death penalty, if this extreme be deemed necessary for the protection of all the interests of society; let its amount be so regulated that it shall preserve a little more or less, the par of metal, but without dependence thereon, or convertibility therein; let metal be considered exclusively as merchandise, its entrance into the country and its departure from it being perfectly free and unembarrassed.

With the adoption of these measures we shall have done all, in our

opinion, that is possible to preserve a stable currency. We shall not provoke now the excessive abuse of credit by inconsiderate or selfish expansions of the circulation; nor the prostration of all interests by contractions equally inconsiderate or selfish. We shall not be, at one moment, exalted by the delirium of fever, but that we may suffer, in the next, the catalepsy, the prostration of reaction; and above all, and which is of the utmost importance, we shall at least have a guaranty against the horrors of the reaction of the money system in the hour of panic.

There will not be wanting those who will oppose our idea of the best monetary system.

Some will say that there is no example of a national issue which has not been depreciated by abuse. The answer is simple.

The world has not yet presented the example of a national issue, made purely with the object of furnishing a stable currency—the best possible currency. This important work has been, always and everywhere, through an inconceivable inconsistency, confided to private hands, whose interests were all on the side of abuse, and the result has not been other than might have been expected.

Others will say that every commercial country ought to have a certain metallic deposit to meet its external necessities, when there may unfortunately occur any failure of crops. To such we may answer, better all the inconvenience of not having metal upon such an occasion, than to suffer the evils which are imposed upon us by the mixed system, or that purely metallic, and which are sought to be justified by this pretext of possessing, so to speak, a reserve of the universal currency. The cost of this hypothetical advantage is too great, and we may very well dispense with it. Moreover, if the scarcity of metal should reach such a point as to render necessary a national retrenchment, it should not be regretted, for an economical penance is not less beneficial, at times, to nations than to individuals.

But if the possession of a metallic reserve be considered of absolute necessity, there is nothing more easy than to have it, without, at the same time, abandoning the idea of a national issue. It would only be necessary to restrict the issue of paper somewhat within the limits of the necessities of the country for a medium of exchange, and we should immediately supply ourselves with metal. This being done, however, we should have lost, in great part, the advantages of the adoption of a currency exclusively of paper, because the metal, in one way or another, would be sure to find its way into the veins of the circulation, and when a crisis should manifest itself, its exportation, as in the case of a purely metallic circulation, would much aggravate its severity.

It would be safer, therefore, that the government, in its issues of paper, should accompany the true and legitimate development of the necessities for a medium of exchange, never stimulating it, and at the same time taking care to prevent that metal be introduced into the circulation.

OUR PRESENT CONDITION, AND THE MEASURES WHICH, IN OUR JUDGEMENT, ARE BEST ADAPTED FOR IMPROVING IT.

From what we have heretofore said our ideas upon the actual monetary condition of the country, and, as a deduction therefrom, the measures which we should counsel for its improvement, may be readily inferred. We have, therefore, little more to say; but that we may not be accused

of any reserve, we will now state what we consider to be desirable, if practicable.

That our money system is defective—extremely defective; that it has run into excesses; that it is responsible for the social corruption and demoralization; the dislocation of labor, and consequent scarcity and high prices of all articles of provision; that there exists redundancy of the currency, and that the standard of value is thereby depreciated, we presume no one will deny. The evil has existed, exists still. How to cure it? This is the question.

The disease, so to speak, being chronic, no good physician would employ or counsel the employment of an active treatment, of strong remedies. Whatever the measures, therefore, of which the government may avail, they should be applied in a gentle manner so as not to aggravate the condition of the patient. His morbid condition disposes him to prostration, and great tenderness is therefore necessary. Nor is this mode of treatment rendered the less necessary by the fact, that his unhappy condition arises from a violation of all the principles of prudence. A kind hearted physician does not resent the failure to observe a diet, nor the neglect even of his remedies by the patient. Thus let us deal with our monetary, economic, and social sufferer; and thus proceeding, without entering, in the slightest degree, upon the legal question of vested rights, with which we have nothing to do, it is our opinion:—

First. That the government should, by all means, recover back from the banks which now exercise it, the issue power, substituting the bank circulation by a national issue; and this being effected, gradually reduce the sum of the issues until there be established, a little more or less, a parity of value between such issues and metal; that the government should, by no means, concern itself about the course of the foreign exchange, but should abstain from all interference therewith, this being a purely commercial question, once that the currency be brought within its normal limits by means of a gradual and gentle diminution of its volume.

Secondly. If it be not practicable for the government to recover back the issue power from the banks now exercising it, then it should oblige those banks to make such a gradual and gentle contraction of their circulation and credits upon their books, as to re-establish the par between their circulation and metal; and this being accomplished, with the greatest ease imaginable, the banks can recommence specie payment. Although a very large number of the commercial community entertain a different opinion, we are perfectly satisfied that, with loyalty and a sincere desire to co-operate with the government, on the part of the banks, there will not be the slightest inconvenience, nor should it cause the least shock to trade, that the necessary contraction to re-establish the par between the bank issues and metal be effected within the term of six months.

We have remarked, that once re-established a parity between the bank issues and metal, a return to specie payments would be made without difficulty, and we found this assertion upon the assurance that, this parity between the bank issues and metal being re-established, foreign exchange would rise to par, and as soon as this shall occur, all motive for the exportation of metal will disappear, and the banks would incur no risk, having even a small reserve of metal, in offering to give that, which nobody would desire to receive.

We are done. And if our crude ideas can be of any value to the country with which are linked all our interests, present and future, our wishes will be fully gratified, and our object in offering them accomplished.

Art. IV.—THE EFFECTS OF USURY ON PRICES AND WAGES.

This seems the proper place, in treating of the effects of usury on prices, to point out the distinction which exists between usury and credit. Although I have hitherto spoken indiscriminately of the usury and credit systems, yet there is in reality an essential difference between the two things. Credit is the entrusting another with goods or property without payment, and is always associated, in its practical operation, with debt. Usury refers, strictly speaking, to increase only.* It is the hire of the loan of money, the rent of land, the increased price put upon goods given in credit. In this light it is invariably presented to us in Scripture. We are all thus far familiar with the existence of usury. In respect that the credit system has established two prices—a price or discount for cash, and an enhanced price on time—we may, without being far astray, speak of that system as one of usury. I will not attempt to define that line which separates traffic from charity, or to lay down for any the proper course of conduct to be pursued in regard to those whose circumstances prevent them from obtaining the necessaries or comforts of life, or who have nothing to give in exchange for those commodities. That there is no charity in business is a truthful sentiment originating in the well known principle of mutual compensation in trade. Some will consider every calamity a fitting occasion of speculation, even as others will consider every case of distress or want a fitting subject of trade. All trade, it must be admitted, is carried on for the supply of human wants, and we must, to all intents and purposes, class the man who is compelled to borrow money with the man who is compelled to borrow food or raiment. The Jews were (I suppose on account of the hardness of their hearts) permitted to take the pledge, but the curse of God rested upon the habitation of the man who withheld it. I am aware that there is a sort of convenient morality abroad, which foists upon the broad shoulders of the Jewish nation, many of the stricter requirements of the divine law. It would subserve no good purpose to condescend upon particular cases. Every man is equally reprehensible, for it fosters speculation, encourages idleness, robs labor of a share of its earnings, creates poverty, tempts young men on the threshold of life to begin business on others' means, disarranges the healthy division of labor, imposes a money despotism, and ministers to that inordinate lust for gold which is never satisfied. If there were any doubts existing in our minds as to the application of the anti-usury Mosaic laws, they ought to be set at rest for ever by the promulgation of the apostolic decree, "Owe no man anything," an injunction which has reference not so much to those who are involved in debt as to those who are clear of debt, not to a part or community only, but to the whole Christian church, and which has also

* For the proper signification of this word, see last year's Magazine, page 573.

reference, by implication, to the lender as well as the borrower, to the seller as well as the buyer. The apostle has evidently had reference, in this injunction, to that system of credit which has been associated with usury from the earliest ages, and of the manifold evils of which he could not be ignorant.* Although there may be credit without usury, there can be no usury without credit.

There is no material difference, as bearing upon the principal objects of our inquiry, between the lending of money on interest and the giving of goods on credit. In commerce, the giving of goods on credit is the giving of goods on usury. As a general thing, no man can afford to give his goods on time on the same terms as for immediate cash. The great bulk of transactions are now undertaken on credit. An increased price is therefore put upon the goods when given on time, and this is the usury of goods. This usury becomes a "charge on merchandise" just the same as cartage, freight, or any other item of expense. This distinction, as expressed by "discount for cash," is familiar to every one. The present credit system, so far as credit is exercised, and so far as that credit operates in usury or increase of price, is identical with the renting of land on hire and the lending of money on interest. There is no difference—I speak now merely with reference to *effects*—between a banker giving a thousand dollars on interest for three months, and a merchant giving a thousand dollars' worth of goods on a credit of three months. They give property of equal value in both cases; the right of propriety rests equally with the merchant as with the banker; the buyer gives, at the three months end, not the same goods, but an equivalent value; the borrower of the money gives, at the maturity of his note, not the same money, but an equivalent value. Each party gives but a promise to pay. The one employs another's money; the other employs another's goods. The only distinction I perceive is that the merchant is paid in money, whilst the banker is paid in kind, a distinction of little moment. The giving of money on usury is not, therefore, the selling of money; the giving of goods on credit, if it may be called the selling of goods, introduces a principles, if not subversive of, at least prejudicial to, the principles of barter upon which all commercial transactions are properly founded. When goods are paid for and settled, then, and not till then, are they virtually bought and sold. I do not now speak particularly of the so-called payment by means of spurious paper money. The passage of such a medium is in every respect identical with the passage of counterfeit gold or silver, and no man will be so foolish as to say he has

* Modern expositors have set aside the force of this injunction, by making it refer to indebted men. You may get into debt, they say, but get out of it again as quickly as possible. It is like telling the thief that he is permitted to steal, but that he must return the property without any unnecessary delay. This piece of Jesuitism has borne its fruit. Everywhere we see manses, schools, and the very house of God built upon credit. And the Christian community has too often witnessed the Church herself reduced to the necessity of going a-begging for means to liquidate her debts. If this is not conformity to the world, I do not know what is. Ought not the Church to show unto her people the more excellent way, instead of thus sinfully indulging in a vice strictly forbidden by that book, the tenor of whose precepts she professes to teach? The Church, like the world, must go into undertakings beyond the means which God has given her, and ever and anon her adherents are startled with piteous appeals to relieve her of indebtedness to the extent of fifty, sixty, or even a hundred thousand pounds. The Church has, no doubt, in these acts exhibited but another illustration of the wonderful ingenuity with which the human mind will impose upon itself. Still, let it be understood, I speak, in these articles, only of the credit system in its broad and general features and as associated, practically, with usury or increase, (and which has become so very generally a cloak for the sin of the Church in incurring debt, heedlessly and needlessly,) and not of those rare and exceptional cases in which credit may be lawfully asked, such as the breaking down of your wagon or the casting of your horse's shoe.

been paid when he takes base coin. The lending of money on interest and the giving of goods on credit are identical in so far as they each create a debt. Let the terms of human contracts be what they may, it is plain that there can be no effectual sale which does not virtually transfer the ownership of the goods. With regard both to the case of money and goods, a charge is of necessity made for the *use* and *risk*, and this charge is known as interest or usury.

I do not allege but that a certain species of barter or interchange is effected and carried on by means of the credit system. Exchange is carried on, and that most expeditiously, too. But, at what a cost is this "facility" obtained! We have been told that the credit system is that by which the barter or exchanges of one set of men are placed over against those of another set, or by which the debts and credits of one nation are extinguished by the debts and credits of another. These are just the ideas of the socialist introduced into trade. If mankind were resolved into one vast trading partnership or company, such ideas might perhaps hold; but, as nature has constituted us not only with varied passions and interests, but also with distinct, definite, and separate rights, all such attempts to reduce mankind into these degrading positions must end in failure, as they have always done. The course of events have but too plainly proved to us the nature of this social credit system. It is a fatal step to attempt to establish a sort of universal moneyed partnership in order to extinguish the debts of society with the credits of society. A thousand influences are daily at work to falsify the calculations, disarrange the plans, and prejudice the adjustments of such a finely balanced scheme. The complications of it are such that the failure of a single individual largely involved may disarrange the whole. Its only basis is a confidence as capricious as it is vain. Let the thousands of millions of dollars lost under it—lost not through its abuse but use—let the enormous national, municipal, public, and private debts, declare whether or not it is a system which extinguishes the debts of society by means of its credits. Let the blighted hopes and blasted homes of millions of honest men declare the nature of this credit system. The calculations of insurance companies as to the average duration of human life in particular districts or countries may be pretty generally correct. When applied to individual cases, these calculations are in the highest degree presumptuous and uncertain. The foolish anticipations of the credit system are of exactly the same nature. It is indispensable, in matters of business, that every man should stand upon his own feet; and trade will flourish better when there is less sham and more reality, fewer promises and more performances.

Let us distinguish three different parties by the letters A, B, and C. A and C are engaged in trading with each other—that is, the one exchanges the surplus production of his commodities for the surplus productions of the commodities of the other. It is admitted, even by the advocates of the credit system, that all trade is founded on the recognition of this simple principle of barter. A has commodities which he does not require—C has commodities which he does not require. The surplus commodities of A are just the very thing which C requires—the surplus commodities of C are just suited for the wants of A. An exchange therefore takes place between the two parties—that is, A sells a certain amount of goods to C, and C sells an equivalent value of goods to A, an operation

which, whilst relieving each of a superfluity, provides each with things indispensable. The only result of the introduction of a medium of exchange—like goods, for example—between two parties is that the values of these commodities are expressed in money terms. It makes no essential difference if either A or C should have in possession more or less metallic money. On the principles above stated, they must each have given a proportionate amount of value in commodities for this money. Let us now suppose that B interposes between A and C as a middleman or banker. He ceases from the work of production, of laboring for himself, and says, "If you, A and C, will support me by your labors, I will serve you mutually in the way of "facilitating" your exchanges. Now, if it be true that all barter or trade is founded on the simple priciples of one party exchanging his surplus commodities for the surplus commodities of another, what possible purpose of utility can B subserve in this self-imposed middle station? It cannot possibly be shown that B is of any service there, for the trade, barter, or exchange which we have set forth, are independent of any such aid. In the circumstances now stated it needs no argument to show that B is a useless burden on the two parties A and C—a burden in regard to the labor necessary to sustain him, and a burden, eventually, on the prices of the commodities raised by A and C. I shall not be assuming any uncommon case, if I suppose that B comes between the parties—between the buyer and seller—armed with only a very large ledger and a very large stock of credit and confidence. With these three precious commodities he is prepared to go into business on a great scale. But B finds that a cash trade affords for him but a barren prospect, so he labors assiduously to subvert the simple principles of barter as laid down by all the economists. Instead of *cash* he must substitute *credit.* Debt must be created, or his business will starve him out. He is not satisfied with the facilities of payment he already affords to A and C. His position as a mere agent is not half dignified enough. He must have trade built upon the bubble of credit, rather than the foundation of cash, and labors to impress them with the necessity and advantage of buying on credit and selling on credit. He denounces the efforts of any one bold enough to lift his voice in favor of the cash system as the heretical notions of a heated and visionary imagination. He sets himself up as possessed of unlimited wealth, and tells these simple traders that, like the magician of old, he has a book, a mere inscription in which turns everything into gold; that he has, in fact, discovered the philosopher's stone. It will never do if A and C persist in buying and selling for cash, in giving value for value, in bartering commodities for commodities. B therefore labors to substitute debt for cash, promises to pay for payment. It is essential, in every respect, that either A or C should fall behind—that some misfortune or calamity should overtake one or other of them which, whilst leaving some sort of substantial security, should destroy the present means of livelihood, or that one or other of them should aspire to something beyond his means. It is quite an indifferent matter to B how many penniless distributors step in between A and C. If collateral security of any kind can be given, he is ready to accommodate each and all. He rightly judges that the more frequent the inscriptions in his magic book, the better he will fare, and, in his personal aggrandizment, he wisely sinks the public good, well knowing that that public will not trouble itself to inquire too discrimina-

tingly into the various elements which go to make up prices, so long as the imposition remains undiscovered. He thus not only destroys the healthy principle by which A and C conducted their business, but robs them of a portion of their property by successfully introducing between them a worthless medium of exchange in the shape of a book of credit or a paper note, and imposing upon them the absurd notion that somehow or other trade cannot be carried on without this paper foundation, an idea, the foolishness of which has only been equaled by the extent of its reception. B is thus held to have the power of creating money by a mere effort or determination of the will. He has brought the community to believe this strange doctrine. The will is naturally determined by the strongest motive, and the motive is, in this case, the desire to earn money without labor. A and C thus place their good name and reputation in pawn or pledge, strike hands, and become sureties for debts. The discounting of a note, and the placing of the proceeds, as a deposit to the indorser's credit, is, in every essential respect, analogous to the payment of money for that note. The indorser can operate upon that deposit just as if it were so much solid gold. And the banker does not act consequently only as simple agent between buyers and sellers. The claims of the sellers are transferred to the banker, with this addition, that he holds both buyers and sellers as security for the payment of the note. For the time being, he takes the place of the seller of the goods, yet the debt is not more effectually discharged than if the seller had retained his note in his own hands and received the amount at maturity. So far as discounted paper is concerned, a banker is a dealer in debt, and not an agent between two parties. What may be said of a bank that discharges its debts by means of its credits, may just as truly be said of every one engaged in trade. The immediate work of a bank, therefore, is to furnish to the community a currency or a means of payment. The discharge of balances, or the payment of mutual indebtedness, is a different and more remote affair, which would go on independent of banks, and fare cheaper and better without them.

The public are receiving, every day, the most striking manifestations of the kind of work carried on by the magic books of credit. The magicians of London ever and anon exhibit, on a large scale, the ease and facility with which millions of her majesty's subjects in distant colonies can be robbed by a mere shuffle of the cards. Yet the public are hoodwinked still. Such things would not be tolerated a single day, did the tribute thus imposed tax the patience of any other class than the laboring and agricultural. It is upon them the burden ultimately falls, and they are patient to endure.

What I have now stated as applicable to these parties will be found to be applicable to nations and communities at large. The true principles of our social and political economy are essentially and unchangeably the same all the world over and in every age. When we come to analyze the various systems which we see at work around us, the mind is arrested at a point beyond which it is neither necessary nor profitable for us to inquire. That point may be defined as the position from which the greatest good for the greatest number is attained. All inquiries which do not tend to this end, or which do not start from this point, are futile and unprofitable. It is by starting from false data that so many inquirers after truth are unconsciously led astray.

In every negotiation for the sale of merchandise, the mind has reference to two things: the article to be sold and the money to be given for it. The price of an article points to the power of property to exchange for money. The long and persistent traffic in usury has given rise to a false association of ideas with regard to price. Nothing is more common than to hear the price of money associated with money itself, or rather associated with a paper medium of exchange. The price of every article of trade is determined by the comparative influences of demand and supply. We do not sell barley for barley, nor wheat for wheat; neither can we sell money for money, nor gold for gold. Unless it can be shown that the laws which regulate the demand and supply of gold, and by means of which its production is attained and its circulation regulated, are, in nature, different from those which regulate the same movements in every other article of trade, we must believe that those principles which profess to regulate the circulation of money under the credit system are fallacious in the extreme. Yet no one has ever presumed to establish or recognize any such differences, simply because it is well known none such exist. The quotations so often heard, therefore, of the so-called price of the currency in money terms, we may designate as the amusements or deceptions of trade, but they have nothing to do with its realities. The price of an article ever points, true as the needle, to its money value; the value of money ever points, as truly, to the price of commodities. No commodity can purchase itself, neither can money purchase money.

It is well known that the price of labor or rate of wages is determined by the rule of demand and supply. The same holds good with respect to every article of merchandise. Wherever this great law meets with unrestricted operation perfect equity is secured. It brings the wants of society into immediate contact with the powers of labor and the resources of art, and exercises a vital energy over the whole human race. No drones are admissible into the hive of human industry. We take the world for our platform, and do not speak of mere sectional or particular interests. Society requires, in one way or other, either for the amelioration of its moral or physical condition, the full individual powers of each of its members. Only the aged and infirm are discharged from this service. The more full, perfect, and complete the labors of each individual the better will the whole of society fare. Production will increase, plenty will abound, and prices decrease. These are the true indications of wealth, far more than the possession of mere gold.

The mere increase of price does not, *of itself*, indicate the introduction of any element calculated to disturb or prejudice the means by which prices are fixed and regulated. It is the pecuniary interest of every man to buy in the cheapest and sell in the dearest market, and this motive alone, so far as commerce is concerned, tends to equalize prices everywhere. The only legitimate result of an increased supply of money is an increase of prices, in which all equally share, and in which there is neither advantage nor disadvantage. This result is as obvious as that an additional supply of water will elevate its level.

Although it appears that the general tendency of increase of money is to increase prices, let no one suppose that, as things are regulated at present, we are able to see this law exercising its healthy influences upon either the range or fluctuations of prices. The paper money here steps

in to prejudice this law—that is, to prejudice it with regard to healthy influences, and more particularly with regard to *fluctuations*. Paper money is now, and has long been, the great instrument of exchange. Gold and silver are not permitted, therefore, to exercise their true and legitimate effects on trade and prices. And if we wish to inquire into the range and scale of prices for a long series of years past, we must mainly take into consideration that which has had by far the greatest exercise in determining these prices, namely, the paper money. The proportion of force exercised in this manner by gold and silver, as compared with paper, may be estimated as one to five. For the same reason the influences of the supply of silver, as compared with those of the supply of gold, cannot now be distinguished, for the paper money acts as a medium of exchange in the place of both these metals. Prices being everywhere expressed in money, and interchange being effected by its means, it needs no argument to show that those prices must be regulated, or rather expressed, other things remaining the same, by the amount of money *in circulation* used as a medium of exchange. If money, for example, increases ten times faster than population, prices will in general correspondingly increase. The rate of increase of population, as compared with the rate of increase of money, is perhaps the most important of all elements in determining prices. Bank deposits, the proceeds of discounted paper, do not appear to exercise any appreciable effect. Pure barter, also, does not seem to have any effect upon the prices of commodities, that is, in a state of society where money largely circulates. The probability is that nothing can so operate except what is tangible and passes into the hands of the community, either real money, or spurious money which discharges the functions of true money.* We cannot hope, in inquiries of this kind, where so many different influences are at work, to attain to any thing more than a mere approximation to the truth. Neither can we expect, under a credit system which gives rise to and fosters all sorts of fluctuations, excitements, and speculations in the market, to comprehend in any great measure the effects which increase of money would surely exercise upon prices under a hard cash system. It is obviously absurd to set up an artificial credit system, with extensive powers lodged in the hands of corporations of contracting and expanding the currency of a whole nation, merely as self interest or policy may dictate, and then to tell us that the operations of such paper institutions present to us the natural and simple movements of the circulation. The fluctuations and contractions in the currency, now so regularly witnessed, are not to be traced to any absolute scarcity or plenty of money. These results are chargeable mainly to the existence of debt, and to the ebbings and flowings of that confidence with which this debt must ever be associated. Debt creates a keen and never-failing demand for money; and should any circumstances arise to call forth universal demand, or shake confidence in credit, or power of borrowing, the contractions in the currency

* Since this was written, Mr. Carroll has an article in this Magazine on the "Congressional Movement in the Currency Question" which, I trust, its readers have all carefully perused. Mr. Carroll differs from me in opinion as to the influence borne by deposits upon prices. He considers that all bank deposits exercise precisely the same influence as outside currency. It seems difficult indeed, from the nature of the case, to come to any other conclusion. Still, it seems to me that bank deposits have not, in effect, exercised this power, else we should have seen prices still further greatly augmented. The whole subject of the influence of the currency upon prices is one of very great importance. It cannot, however, be brought to any satisfactory issue independent of the usury question, for *debt* is the main element in the disturbance of prices.

which thence follow serve only to aggravate these symptoms. Hence the evils of these fluctuations cannot be charged to the currency itself, but to the improper use which is made of it. For, be it observed, these fluctuations and contractions have a bearing upon the prices of commodities only in so far as they originate in debt. They point directly to the hire of loans, not to the prices of commodities.

The tendency of increase of money is increase of all prices. This, we say, is the *general tendency* of increase of money; but this circumstance cannot of course exercise the same effects equally on every article of trade. The *particular price* of any article at any given moment depends upon demand and supply. The scarcity of articles in general use will enhance their price—the scarcity of demand will lessen their price. Many different elements enter into competition before the particular price of any article is established, and it may be a difficult matter, at all times, to trace their varied operation. Still, these may ultimately be all reduced, with regard to fixing a price, to the unfailing rule of demand and supply.

These general remarks may perhaps prove suggestive of further thought in connection with the subjects treated of. The whole has a highly important bearing upon the proper consideration of the export and import trade of the country, regarding which we may at a future period have an opportunity of making some few observations. We now proceed to the more immediate object of inquiry contemplated in this article, namely, the effects of usury, or lending on increase, on the prices of merchandise as established by the laws of demand and supply. We think we will be able to show that the tendency of this system, with regard to prices, or rather with regard to the interests involved in the matter of prices, is evil and pernicious. There are many side issues here dependent, all exercising more or less pernicious influences on trade. But we propose to confine our attention simply to the effects borne by usury on prices. We discard, then, from our view, for the present, the influences which the mere increase of money bears upon the advance of prices.

The proposition which I advance is this: that wherever usury is exercised, it establishes, with regard to commodities, a code of prices beyond that which the consumer ought in justice to pay; and, with regard to wages, establishes a rate lower than the laborer and artisan ought to rereceive; or, in other words, it takes, without recompense, a share of the labors of community. This is the invariable tendency of usury, its last and one of its worst results, and here it persistently "bites," although paper money is the offspring of the usurious spirit, and indicates that spirit very fully developed, yet the evils which I now point out do exist, and would exist, independent of any such outgrowth as a paper currency. The establishment of all banks on a hard cash basis would certainly tend very powerfully to arrest, perhaps absolutely restrain, all commercial panics, but the more serious evils pointed out in this paper as the result of usury would exist as before, and exert undiminished force. The paper money must be classed simply among the higher masterpieces of imposition and fraud. But the usury, or lending of money on interest, whether paper or gold, leaves its blighting effects persistently, daily, and without abatement on every industrial employment.

It will be admitted by all that the usurer is paid by somebody for the use of his money. The matter is to find out where this tax particularly falls, or in what manner it is taken out of the pockets of the community.

Let us suppose that two individuals, placed in about the same relative

position, are about to begin business in the manufacture of steam engines. The one has in hand $40,000 of his own which he invests at once in his business. The other has no money of his own to begin with, but by granting to the money lender some sort of security, he borrows the $40,000 at say eight per cent per annum, which he similarly invests. The credit man is loaded at once with a yearly tax of $3,200, and he looks to no other source than his business to yield the means of paying that tax. It becomes a continued charge upon the business in which he is engaged, and must be paid. There are only two ways by which he can make this interest forthcoming. He must either add the amount to the price of the engines, or deduct it from the wages of his laborers and artisans. There can be no doubt that ordinarily both the consumer or purchaser and laborer or artisan experience the effects of this tax upon their industry, though they may fail to appreciate it or trace it to its source. The cash man, on the contrary, having no such tax to meet, is not only enabled to sell his engines, if he chooses, at a lower price, but to afford his men a better rate of wages. He is, in every way, enabled to carry on his business in a more satisfactory manner. We do not of course perceive, as the result of this system, two different scales of wages established in manufactures, or a cash rate and a credit rate. The current rate of wages, like everything else, is determined by demand and supply, and the effect of the mere demand of the cash and credit manufacturer will be distributed equally over both businesses. It would be possible for the cash man either to sell the engines lower or to pay his workers better wages by an amount equivalent to that which the credit man had to pay for the borrowed money. Or he might hire in more laborers than the credit neighbor and thus produce more material for the same money and reap all the benefit himself. The operations of the cash and the credit manufacturer have a mutual action upon each other in determining the price. As a general thing, cash manufacturers will reap a certain advantage in the impetus given to enhanced prices by the great number of credit manufacturers. Had these two individuals begun business exclusively on their own means, the current price of their manufactures would have been determined mainly by the rules of demand and supply, the consumers and workers would have been benefited in general to the extent of the $3,200 per annum, and the credit manufacturer would, in every aspect of the case, have been in a better condition.

It is worthy of note, also, that the collateral security, whatever that may be, given by the credit manufacturer, is loaded with a *double risk:* that which ordinarily and necessarily attaches to business of all kinds, and that which is imposed by the obligations of debt.

Let us now look at the case of imported goods. The importer who buys his goods in Britain, buys them from a wholesale merchant who has purchased them with borrowed money from a manufacturer whose looms have been moved by borrowed money. That importer himself imports them on borrowed money, in bottoms moved by borrowed money, and sell them in this country to traders, many of whom are also sustained by borrowed money. If we calculate the various taxes thus heaped upon the same goods, and the additional rates imposed to cover the losses and bad debts incurred to such an extent under the credit system, we are probably short of the reality in stating that imported goods generally are enhanced through usury twenty-five per cent ere they come into the

consumers' hands. We assume that banking money is, on the whole, turned over by importers twice a year. We don't speak particularly of the influence borne on the prices of imported goods by the imposition of customs duties, from fifty to seventy five per cent of which may be charged to the existence of usury or borrowed money. Thus, if twenty per cent is imposed as duty, ten per cent of it and upwards owes its existence entirely to the accumulation of national debts, for the payment of the interest of which these customs duties are in part imposed.

The differences in the prices of goods must always be regulated according to the mode or period of payment. It would be absurd to suppose that people can sell their goods as cheap on credit as for immediate cash. They must not only charge for the want of the use of their money, but also for the risk. Each credit purchaser therefore pays something more than the absolute price of the goods. He may be said to pay for his inability to pay, or for the use which he makes of the seller's capital for the period of credit. The risk of the credit has been amply verified by experience. As it is not known where this risk may particularly fall, a general distribution is made of it, in the same manner as fire risks are distributed amongst the insurers. Prices are thus enhanced in two ways to every purchaser. The ancient fathers and canons of the church forbade selling on credit at a higher price than for cash, which was, in effect, to forbid credit altogether. Well would it have been had the precepts of these wise men been more regarded. The modern fathers of the church, on the contrary, consider that a little debt, or as commerce calls it, a "reasonable credit," is a very good thing. People thus become familiar with debt, and are taught to regard it as indispensable to human progress. Hence the ridiculous attempts to associate this debt with good reputation and character, and hence the strenuous endeavors of governments so sustain their credit, although over head and ears in debt. On no other point are people so exceedingly jealous and sensitive. A breath of suspicion may destroy their prospects for life. Is not this a melancholy commentary on that state of absolute dependence always associated, more or less, with credit?

To illustrate this subject still further, let us suppose that ten bales of cotton are disposed of for $400, and that, before it comes finally into the manufacturer's possession, it changes hands six times by speculation. If the six different securities taken for this cotton are discounted at six per cent, and have, on the average, three months to run, a tax of $36 is imposed upon the cotton in its raw state. If the notes had, on an average, six months to run, the tax would be $90. This is, on the whole, beyond the average rate of net trading profits in the community. If the notes had twelve months to run, by renewal or o herwise, the tax imposed by usury on the $400 worth of raw cotton would then amount to $180. Most of the chief articles of consumption, such as sugar, tea, coffee, flour, wheat, change hands many times. When trade is brisk, or speculation active, the tendency is to inflate prices, for which the consumer must pay until the period of reaction comes. This is the harvest time of the banks, for an imperious necessity is laid upon all parties to meet banking obligations. Keeping risk out of view, the oftener the goods change hands, the better will the money lenders fare. We are accustomed to be told that this activity or briskness of business is an index of prosperity. It is such, no doubt, to commerce, but quite the reverse to those

vital interests upon which commerce rests, and without which it could not exist at all. Consumption in general goes on with very great regularity. The wants of a family to-day are the same as yesterday, this week as last week. The existence of debt does not afford us better clothing or food. When the credit system overreaches itself the community may be compelled to practice economy through the existence of debt or inability to buy. It is not therefore in the region of consumption that we must look for the causes of those irregularities, fluctuations, and convulsions which now so seriously affect commerce.

No great objection can be made to our assuming, as above, that mercantile bills have occasionally twelve months to run. Taking into consideration the fact of renewals, accommodations, and notes granted on account of composition and time, and that many notes are drawn ordinarily at six months, it is possible that the average of actual payments may be nearer twelve than three months. In this city (Montreal) the credit for goods varies from three to six months. As the principal sales, as to amount, are made at six months, the average may be stated at five months. It matters not that generally only short dated paper, or notes having only three months to run, are discounted at the banks. The credit is given, and must be paid for by the consumer accordingly. As to removals, the average amount of payment on promissory notes in all trades may be set down at from fifty to sixty per cent. The period of credit is, consequently, correspondingly extended. Notes given in bankruptcy vary, in time to run, from three months to three years.

We may look at this subject of prices from another and perhaps still more striking point of view. If the reader will glance at the tables in the banking department of this Magazine, he will find that the amount of loans specified in the returns of the principal banks throughout the country represent no mean sum. The banks of New York report a line of discounts of about 130 millions of dollars; of Boston, about half of that sum; of Philadelphia, nearly half of those of Boston; of New Orleans, about three-fourths of those of Philadelphia; and of Providence, about the same as New Orleans. These banks alone represent a total of loans of 260 millions of dollars. The banks of Canada report a line of discounts usually averaging thirty millions of dollars. These sums combined represent a total of 300 millions of dollars lent on hire. The interest of this vast sum at 7 per cent is 21 millions of dollars. But this does not indicate anything like the real amount paid for the hire of money. Mr. Colwell has given some valuable statistics on this point. He estimates the sums paid for interest and discount in and out of bank in the United States alone, during 1856, at $100,000,000! He assumes that the daily payments of New York city amounts to $30,000,000, and that the whole payments of the United States range to ten times this sum, or $300,000,000 each day. Were interest charged for the whole of this, it would amount to the almost fabulous sum of $900,000,000. Mr. Colwell estimates the amount paid yearly for interest as high as $450,000,000. The amount is probably overstated, for all these payments are not on account of discounted paper. The annual clearings of the banks of New York amounted, in 1857, to $7,000,000,000, or about $20,000,000 daily. Even at one-half of this estimate, the sum paid by the consumers throughout the United States for a so-called accommodation, as false and hurtful as it is useless, would amount annually to the

enormous sum of *three hundred millions of dollars*. We are inclined, however, to believe that a sum of one hundred and fifty millions of dollars may be set down as a safe estimate. If the banks throughout the United States reap a sum of $100,000,000, it gives to each of the 1,400 banking establishments a yearly profit of $70,000; $2,100,000 is the sum drawn out of the pockets of the consumers in Canada by the banking institutions of that colony. If we divide this among the ten chartered banks, it gives to each the snug sum of $210,000 yearly. If we calculate the interest upon other transactions in and out of bank, and the sums paid on account of the provincial debt, and of the thousands of mortgages throughout the country, we are probably not far astray in estimating the sum paid in Canada, on account of interest, at four dollars per head of the population. These are the sums which usury adds to the price of the goods we consume, and for no benefit whatever. It passes from the pockets of the many into the pockets of the few. The price the Americans pay annually in the way of a tax upon their goods for the use of this worthless commercial "wampum" is equal to one-fifth of all the capital employed in the United States in manufacturing, mining, and art, or more than double the annual yield of California gold! Every man, woman, and child in the United States pays at least a sum of six dollars annually for the privilege of being robbed. These are the sums which usury is instrumental in adding to the price of every article of consumption, luxury, or use; or, in other words, the labor of the community suffers a loss equivalent to what is designated by these vast sums. And what is the recompense we receive? Positively worse than nothing. A fatal currency is introduced throughout the whole of the community—the men of commerce are reduced, by the blandishments and charms of a system as cruel as it is delusive, to stake their interests on a cast of the dice—the framework of society is periodically broken up, and its energies paralyzed—and the minds of all are kept in a state of nervous expectation and excitement, but ill suited either for the concerns of domestic life or the safe and steady progress of labor and commerce.

If these exactions were to end where they begin, there would not be so much cause of complaint. But it is impossible to confine them to commerce. They fall with the heaviest effect upon those who constitute the foundations of society—the agriculturists and laborers of the land. It cannot be alleged that these classes receive any accommodation from the banks; yet it is upon them, the backbone of the nation, that the burden is principally laid. We must trace all interests eventually to the soil, for the profit of the earth is for all, and the king himself is served by the field. Upon what principal of equity ought these important classes to be saddled, not only with a tax for which they receive not the remotest benefit, but at the same time with a currency liable at any moment to be dishonored? All classes are indeed equally deceived with regard to the paper currency, because it drags down the value of gold to its own level, so that the gold is found to exercise no more exchangeable value than paper, and this circumstance is that which principally deceives the laboring classes into the belief that paper money is as good as gold.

I have said, in a previous article, that the possession of money, real money, either by a family or nation, ought ever to indicate that it has been received in exchange for articles of similar value. It is not easy to

apply this law to the case of paper money, seeing that it is a sort of capital which can be created with the greatest facility, and that a fertile source of wealth is found to lurk in a stereotype plate. Now, it has become the fashion to consider, if this capital should become dormant or be permitted to lie unemployed, that much evil must result to the community at large. The man who chooses to purchase a hundred or a thousand gold sovereigns, and to lay them past for some future emergency, or for the wants of old age, is stigmatized as a hoarder, a miser, or something worse. It is difficult, however, to perceive where the guilt of such a transaction lies. If the "hoarder" has given real value for his gold, society has certainly no right to complain, for he has put something valuable in its place. We can easily perceive why credit men, or borrowers and lenders, should cry out against such proceedings. I know many men who clear six per cent and upwards by inducing frail people to let their money pass through their hands, and those who indulge in borrowing money will of course be always anxious that there should be no stoppage of the supplies. Hence has arisen the notion that if a sum of money is permitted to lie unemployed for a few days, it is so much lost interest. This idea, it will be perceived, is associated exclusively with usury, for if no usury existed traders would no more distress themselves about a few pounds lying unemployed than they would do about a few yards of cotton. All this reacts ultimately in an evil way upon the matter of prices. The more lenders there are, and the more money there is lent, the greater the enhancement of prices, and the greater the strain upon producers. Another evil is, that vast quantities of goods are manufactured, which become speedily unsaleable through change of fashion. These goods, however, must be paid for one way or another, else they could not be produced, and this is done in a way so evident that I need not specify it.

The impetus thus given to carry transactions far beyond the wants and means of society, and the tendency thus given to enhance prices far beyond the necessary and ordinary limits regulated by demand and supply, and associated as these are with a spurious currency, cannot but periodically result in panic and convulsion Bank credits have their share in bringing about these results, for they perform the very same functions as bank notes, and so far as they operate in payments, so far do they operate as currency or money; whatever will in reality pay a debt or recompense a sale, must be considered, to all intents and purposes, as perfect a currency as gold or silver. That, and that only, is the idea the public have of bank notes and bank credits, a fact which is abundantly demonstrated by every commercial crisis. It is beyond the power of the wealthiest corporations, or the most powerful governments, to prevent the recurrence of these panics, so long as business is carried on so generally by the present means of credit.

That commercial transactions are carried by debt and credit far beyond what they ought to be, will be evident from the following calculation. If we estimate the daily payments throughout the United States at $100,000,000, it exhibits to us each family purchasing and selling commodities every day to the extent of twenty dollars, *or over seven thousand dollars per annum.* If we take the payments at $200,000,000, which is nearer the truth, it gives us each family buying and selling property every day to the value of forty dollars, *or over fourteen thousand dollars per*

annum! Surely a tenth part of this sum should be considered a good trade—all the rest may be set down to the speculation sustained and fostered by lending on usury, or the facilities afforded by discounts. A state of things such as this cannot go on long without reaction. The greater portion of the tax incurred on this head will go to augment the prices of articles entering into daily consumption—a part of the loss will also fall upon those who engage in this wild game.

What an oppressive and grinding system must that be which leads to such a state of things. The abolishment of usury would prune off almost all this unhealthy growth. It would arrest the progress of that putrid stream which now flows through the land, draining it of its strength, and spreading pestilence on every side. People will be very cautious with their speculations when they come to use their own money, the value of which they have fully learned by the labor they have given for it.

The reader will perceive, from what has been now stated, what a fat pasture is afforded for usury by our present system of commerce. If commercial convulsions can only be warded off, the pecuniary success of the lenders will be in proportion to the amount of the tax, in the aggregate, laid at last upon labor A large portion of the net profit of the trade and of the producer thus passes into the pockets of the money lenders. Usury could not exist a day without speculation, for speculation, in its worst feature, begins the moment a person becomes a borrower, or fails to stand exclusively on his own resources. It is thus the interest of usury to build up a vast foreign commerce, to sustain large houses at the outports, and to foster the concentration of large manufacturing establishments in a few great cities. It is, on the other hand, the real interest of the community at large to encourage home manufactures of all kinds, and to have these manufacturing establishments distributed throughout the country, in some measure commensurate with the natural facilities afforded, and the general distribution and wants of the population. In all the adjustments of our social condition there is a healthy limit, which can never be overstepped with impunity.

There is another element bearing an important influence upon this question, which must not be overlooked. If it be true that a season of profusion and plenty of agricultural products indicates a state of general prosperity, it must be also true that the same rule applies to everything which ministers to the ordinary wants of the human race. The free and full development of the labors of each individual are requisite to attain this desirable end. Of the distribution of the products thus produced we need not now speak, as those rules which, from their nature, tend to equalize prices, will, if allowed unfettered operation, transmit them through their proper channels. Anything acting as a barrier to these popular energies must react perniciously upon trade and society. If, for example, one-half of the community were suddenly to experience some sort of physical calamity which would reduce them to the condition of paupers, a double strain would be put upon the other half to feed, clothe, and shelter these paupers. There is great wisdom in the necessity which has been imposed upon us, to earn our bread by the sweat of our brow. When multitudes are thrown out of employment, as during the periods of commercial convulsions, a dangerous element is in the ascendant. The introduction, therefore, of any division of labor, the practical result

of which is to create and sustain a condition of idleness, cannot but operate injuriously upon the material interests of society. The usury or banking system has practically this effect. A very large class of idlers thus pension themselves off upon society. They add neither to its wealth, its labors, nor its comforts. They are not traders—they are not producers. It is alleged, in favor of this portion of society, that, as a class, they are afflicted with a sort of chronic incapacity to engage in the active pursuits of business. We may let that pass for what it is worth, simply remarking that the objection comes with a bad grace from a profession proverbial for its acuteness and ingenuity. It is of no use to tell us that some have done well under this system, or that, through some sort of pseudo charity generally considered to associate with lending on interest, some have been occasionally rescued out of their difficulties. The same can be said as regards any questionable occupation. We must look at the system as a whole in its general results upon the human race. And the evil is not, strictly speaking, measured only by the actual number of idlers thus sustained by the community in general. The amount of the money invested in usurious transactions must be taken into account. The amount of actual pressure upon the community is thus measured by the actual amount of debt, and this pressure is exercised mainly by means of prices.

I have spoken as if these lenders had lent nothing but the pure gold —nothing but what they had attained as the fair and proper reward of their labors. But what shall we say of this class when we find that, instead of lending the good and solid coin, they fabricate a spurious paper money? If they lent something valuable, something more tangible than their "credit," they would only stand related to society in the position of idlers. They would in that case have lent what they or their forefathers had honestly labored for and honestly earned. But in regard that they lend, not the valuable coin, but the worthless so called representative of what they do not possess, whether in the shape of bank credit or bank circulation, they not only pension themselves off upon society as men of credit, but introduce the very element of its destruction.

Let us now turn our attention, briefly, from the consideration of the effects of usury on commerce, to its effects upon the interests of agriculture.

Thousands of cases are continually occurring, especially in the recently settled parts of this new country, of poor emigrants laying out all they possess in the purchase of wild or brush farms at those exorbitant rates imposed by usurious governments, land speculators, or monopolists. They are compelled to pay, for God's wild acres, sums ranging from one hundred to four hundred dollars, in order to attain a farm of sufficient size for the wants of a family, and this for land upon which no labor or expense has been put, except perhaps that of a general and superficial survey, or the chalking out of a trunk road. They find themselves, after getting into possession, absolutely without means to sow, cultivate, or clear the land. But in every neighborhood some may be found to respond to such cases of distress. In this dilemma, the man of wealth steps forward, and after the ordinary panegyric on the value of money, the risk of the undertaking, and so forth, the disinterested lender closes the transaction by advancing the needful supplies of wheat, oats, barley, or money,

at a return at the year's end of twenty to one hundred per cent. I have specified no uncommon case. Throughout the rural districts of this country it is difficult to find any section where such things are not extensively done, or where the lands thus mortgaged are not falling rapidly into the hands of the lenders. Now, what are the results of this system? The people thus indebted—and they are by no means a small class—must sell the produce they raise at a price enhanced equivalent to the average rate of interest in general imposed, in order to pay the money lender, and also yield to themselves that return of profit without which no labor or employment can be continuously exercised. A tax is placed upon the farm produce so that the lender may be paid. The effects are exactly the same as in the case of manufactured goods. In both cases a tax is imposed inimical to the interests of the consumers at large. If the lender is largely engaged in the cultivation of the same agricultural products, he will share in the advantage which his own act gives to the enhancement of prices. The agricultural borrower and his family are placed under a serious disadvantage, in the necessity imposed upon them to compete with those around them who are in better circumstances or under less indebtedness. The wealth of the usurers in such cases, whether represented by lands, buildings, stock, money, or effects, is measured by the amount of labor thus taken from the community.

These remarks apply with equal truth and force to the case of rent or hire of land. There is no difference in principle—the parallel is perfect. The rent of land is just the usury of land, neither less nor more; and is exactly equivalent to the rent of money. In countries where the usury of land largely prevails, we behold the same result as in commercial communities—the many taxed for the support of the few. Let no timid reader imagine that we are about to advocate anything like the subdivision of vested rights. Our conservatism points all the other way. If the evils of usury, whether in regard to money or land, have become too vast, or the interests involved too powerful, to be mended by legislative action, they must first be endured till they are settled in some other way, concurrent with the natural course of events. We find no fault either with the possession of land or money, so far as fairly acquired. Our remarks have reference only to the usurious use to which each is put. Lending on interest is, in every case, at variance with the interests of the commonwealth. Even were it possible that the well being of the commonwealth should require particular rights to give way, no man has any right to challenge legislative authority in such a case. If the anti-usury principles advocated in these pages were in full vigor throughout the world, I should be very content to leave unwieldy estates and unwieldy fortunes to take care of themselves. If they could not hold their own against the working of these peaceful, reasonable, and orderly principles, it would be better both for their owners and the community that they should in some measure be shorn of their strength, or reduced from their unwieldy proportions.

Wherever the usury or renting of land prevails, a tax is placed upon the farmers, or rather the laborers—for labor in this, as in many other cases, is the last resort—to support the landowners. The tax thus placed upon the farmers of England, Scotland, and Ireland, is equivalent to the amount of the rental of these countries. In Ireland especially, where middlemen prevail—who may be compared to the speculators in com-

merce—this tax grinds down the laborers to the last degree. It is a useless, burdensome, and pernicious tax, for whilst elevating the few to a dangerous height of wealth and power, it depresses the many, in a corresponding degree, to a condition, comparatively speaking, of pauperism and bondage, and introduces a system of caste almost as rabid as that of India. If a landowner rents out ten farms at £200 apiece, the amount drawn from the produce of these farms to satisfy the demands of the landlord will be £2,000. No doubt this sum is either added to the price of the produce raised by the people on these farms, and thus comes out of the pockets of the consumers, or it is deducted from the wages of those employed in raising the produce. The laborer's wages are thus not only reduced, but the very products they are instrumental in raising are enhanced to them in price. It is not, strictly speaking, so many farmers or farm workers supporting one landlord by their labors. The evil must be measured by the amount of rental which is paid to the landlord. It necessarily varies in intensity from the most violent rack rent down to the simplest fee. If, in the case supposed, each of the ten farmers clears £200, the landlord clears £2,000, ten times more than each of the farmers, or as much as all the ten combined. This sum the landlord spends amongst surrounding tradesmen, land factors, or lawyers, perhaps in ministering to the luxury of distant cities, or in adding improvements to his estate, that the market value of it may be increased, and thus a larger rental or tax got from the next tenants; or it may be, like my Lord Harkaway, in horse racing, hunting, grooms, horse jockies, or such like. So, instead of the ten farmers only supporting one landlord, they do in reality support every one supported by the landlord, or as far as the rental goes. *Price* affords always an easy means of accomplishing these results. The money compact between landlord and tenant is, *through the aid of price*, taken out of the pocket of a third party, the consumer, who has no interest in that compact.

The unthinking multitude are prone to jump to the conclusion that they are directly benefited by this increased price of their commodities, just as some wise merchants would like to see a bank placed at each of their backs. The source of this transparent error I need not pause to point out to the readers of this Magazine.

The capitalist who lends sums of money on interest to ten different traders is to all intents and purpose in the same position as the landowner who hires out farms to ten different farmers. The farms represent the principal, the rental is the interest paid for the use, and the lease is the period of the loan, or represents the discounted paper. At the expiry of the lease, the landlord resumes possession of the ground, renews the lease, or transfers it to another; at the maturity of the note, the capitalist either renews it, resumes possession of the money, or transfers it to another. The only material difference is this—that, with regard to renting of land, no general panic can occur through the destruction of credit or borrowing powers, except in so far as the fictitious money of commerce has passed into the hands of the agriculturists. If a farmer should get into the background, and be unable to pay his rents at the stipulated terms, the landlord may resume possession and recover arrears by a process of poinding and sequestration of the farmer's crop, stock, and effects. But no general panics can ever occur similar to those which periodically put commerce out of course, because the land is there and cannot be bartered away like ordinary merchandise, and it must always be in de-

mand to supply those persistent wants which cannot be put off a single day. With the exception just stated, the renting of land is identical, in all its more serious results, with the hire of money. It exercises upon the laborer the same continued pressure; it degrades the many and elevates the few; it has given rise to anarchy, confusion, and strife in every period of the world's history, setting in hostile array the different classes of society; and the careful student may everywhere trace its effects in revolution and blood. Christian commentators who fail to look beneath the surface of things, and newspaper scribblers who cannot look beyond their nose, are continually trumpeting forth the advantages of borrowing money by the supposed innocuousness of the renting of land.

Setting aside fluctuations in prices following upon mere temporary or local causes, the rates of wages will always, as a general thing, follow any permanent or established advance in prices of merchandise. But advances in the rates of interest tend to the benefit only of the lender, and as the interest can be taken from no source except that of labor, the real practical effect of such advance, however much it may be hidden from public view, is to reduce the relative value of the wages of labor. Every man will then sell his commodities at an enhanced price, or reduce his laborer's wages, in order to pay the usurer, and the whole proceeds thus subtracted must go into the pockets of the money lender. The consumers and producers, as a body, tax themselves in amount equivalent to the advance in interest, and the lenders, as a body, reap all the benefit. This, I think, puts the matter in a plain and striking light. Many important interests are no doubt concealed under the superior nominal rewards of labor in modern times. It is not the interest of this bank or that bank, or of the money lenders as a class, which must be consulted in this matter. We must look to the man with the broad back and the brawny arm, for he it is who at last foots the bill. Where is the advantage, then, of any rate of interest, much less of an advance in these rates, to the laborers and producers of the land? The old thread-bare argument that money is an article of commerce, and that lenders should therefore be unrestricted in their demands, is being continually trumpeted in our ears. And so it is an article of commerce when you buy something with it; but it is a very different thing when you lend it out and involve silly people in debt. We cannot but feel a sort of sympathy with the condition of mind which would attempt to associate, either in nature or effect, buying and selling goods with borrowing and lending money.

If a large landowner becomes a borrower from a land bank or other institution, the evils of the usury of land are doubly increased. The producers must not only pay a tax for the borrowed land, but also for the borrowed money. If such borrowing were to become general, the usury thus twice exacted would doubtless be distributed over prices as we have already indicated. The interest of the money must be paid, and it must be taken out of the land. The landlord who is not indebted, and who begins to borrow money, say at six per cent, places himself very much in the same position as the man who, to clear off some pressing mortgage at six per cent, borrows anew at twelve. The general effects, therefore, of land banks are two-fold—first, they increase the price of commodities, or decrease the wages of labor, without any advantage being given; and second, they foster the existence of a host of *dependent day laborers*, who would be far better employed were they tilling their own lands, and who, when the day of reaction comes, can neither be employed nor fed.

There seems to be more permanency, just because there is less risk, in the system of the usury of land than in that of the usury of commerce. It must have struck every observer, how very frequently and speedily many families, once ranking high amongst commercial men, have passed away into obscurity and poverty. Their riches have taken wings, and the ups and downs of trade have become a proverb.* Not so, however, with landholding families. Most of them, where they have kept clear of the money lender's purse, can trace uninterrupted possession for many centuries. The family name and the family mansion are had in affectionate recollection; and perhaps the best commentary on their value and worth, is the spleen and envy exhibited by idle demagogues towards those who own the one or the other.

Alas! under this system, both in town and country, thousands and tens of thousands grow up from infancy to manhood, and from manhood to old age, with the knowledge that they have no consecrated spot on this earth they can call their home. A shifting and restless population grows up side by side in daily increasing numbers, to whom the sweets of that precious sanctuary are altogether unknown, or but half enjoyed.

> "Each shade of circumstance that mark'd the scene
> Of young existence,"

is remembered but with sadness and regrets. The excitement of modern business now thrusts its unwelcome presence into the circle of peace and the hours of rest. Debt, with its gaunt and grim features haunts many a pillow, leaving its premature furrow on many a manly brow. And whilst the birds of the air and the beasts of the field enjoy their nests and holes, millions of our fellow men have neither homes nor habitations they can call their own. And alongside of that poverty and wretchedness which appear to find their best elements of growth in high commercial communities, we find the display of unbounded wealth and magnificence. Effeminate luxury and a gew-gaw taste will assuredly sap the strength and vitals of any community. None are yet beyond the reach of those influences which have had so large a share in the fall of nations. The demoralizing influences arising from great wealth in few hands, the cupidity excited in the hearts of the vagabond, the idle, and the disorderly, by the exhibition of that wealth, are still as active as when Lycurgus fashioned the money of Sparta of rude iron, in order to preserve at once simplicity of taste and banish objects which might excite desire.

It is not possible, whilst such a system as that we have described is allowed to last, but that the laborers must be doomed to a life of hard struggle and bondage. Their broad backs are loaded with burdens too great to be borne. The distressed condition of thousands of workpeople in large cities—iron workers, needlewomen, handloom weavers, mechanics, &c.—is so well known that it need not be recounted. The elegances of civilized life they can never hope to attain—few of its amenities they can ever enjoy. Whilst parading abroad those high statistics which commerce proclaims as the evidence of advancing wealth and power, we are too prone to forget that patient and useful class which contributed mainly to those ample stores. Our laborers and artisans are kept too

* It appears by the statistical tables issued by Dun, Boyd & Co., January, 1860, that the whole class of traders throughout America would be swept clean away by the credit system in the short period of fifty years! Such a terrible fact as this ought to arouse the attention of every statesman.

near to absolute want; they sail almost within the breakers; they may be plunged into them at any moment. Surely no feeling mind can ever contemplate this as the normal and inevitable condition to which they were born. The vice of the money lender has contributed more than all other influences combined to this state of things. From year to year it throws upon society an uninterrupted stream of rags and wretchedness, over which philanthropy vainly mourns, and which the combined benevolence of the age need hardly hope to abate. The act of lending on interest may seem a very harmless sort of thing; but it is an evil which perpetuates itself with increasing force in every direction, and in ways hardly thought of, throughout the whole of society. It is true that this system of debt and credit has been so long assiduously associated with the generous confidence and integrity of commercial men, and with the glory and pride of modern commerce, that the evils and sinfulness of debt are practically overlooked or forgotten, and we unconsciously place a yoke upon our own necks. There is something so fascinating in the idea that you may move about in a few years amongst your fellow men as a "luminous orb of credit," that the occasional extinction of one of these orbs, and the periodical collapse of the whole system, do not deter men professing the Christian name and faith from engaging in this wild game. The most flourishing institutions amongst us are those which are supported by means absolutely forbidden by the law of God. The "employment of banking capital" has resulted in the most terrible inroads upon the peace, happiness, and prosperity of families and nations. Among the numberless influences at work to prejudice the truth in the minds of men, and retard the progress of Christianity in the world, probably none have exerted more power than the spirit of usury. A sober and comprehensive view of the whole subject in its true light, cannot but leave the impression that a healthy abhorrence of debt in the public mind would be one of the greatest steps towards social, civil, and political prosperity. Too often have I witnessed with sorrow and regret the extent to which this system of usury has shriveled and shrouded minds, otherwise acute and intelligent, in a mist of impenetrable gloom. Too often have I heard with pain and surprise its shiftless arguments reduced to the necessity of ignoring all charity and all faith.

From all that has been stated, it appears that any legal enactments which would tend to arrest the powers of borrowing on interest are worthy of our most serious consideration. The race of lenders are those who offer the temptations to borrowers, and for obvious reasons the Scripture anti-usury laws are mainly directed against them. The words of the statute of Queen Elizabeth, that the "vice of usury abounds to the utter undoing of many gentlemen, merchants, occupiers, and others, and to the importable hurt of the commonwealth," may be applied as truly at the present time. The whole question, therefore, is one which comes most appropriately under legislative review. That would be a most salutary and merciful enactment which would destroy the present facilities of contracting debt; which would secure the uninterrupted possession of property; which would liberate the vast sums now locked up in mortgage; which would insure the employment of capital in the hands of its proper owners, in the various paths of commerce, labor, and art; and which would compel the thousands and tens of thousands, who now live off the labors of their fellow men, to enter with willing heart and

hand into the great field of production, thus at once blessing themselves by removing the source of endless disquietudes and troubles, and blessing their fellow creatures by adding to their stock of material comforts, and withholding from them the temptations to enter on a path at best but slippery and uncertain. Such enactments would no doubt be frequently violated, just the same as every other enactment which lays a restraint upon vicious practices. If that were a solid reason why no legislative action should be taken against usury, we should have no laws directed against theft, murder, or any other crime. The destruction of the paper money, the annihilation of the present credit system, and the practical arrest of usury or lending on interest, are the three great social problems which, sooner or later, the world will be called upon to solve.

Nothing more plausible has ever been imposed upon mankind than this system of credit or usury. Under the guise of assisting you, it takes you by the throat; under the semblance of doing you a good turn, it bleeds you to death. It fattens on everything venal; it makes merchandise of everything sacred. It cloaks its disgusting and avaricious features with the garb of charity. There is nothing too low to which it will not descend. Whilst professing to drain your farm, it drains your purse. Under the name of "provident," it will dig your grave or provide your coffin. It delights in high names and good associations, and links itself to all the virtues. Its hypocrisy is consummate, for when you are running in debt, it blandly says you are only opening a credit. It pushes itself forward amongst the honorable of the earth, yet delights in secresy and revels in deeds of darkness. It is steeped in guilt, for it has caused more sorrow than ten thousand battle fields, and it comes to us freighted with human distress and tears. It proclaims itself to be the life of trade, yet annually immolates its thousands of victims.* Whilst professing its identity with trade, it does not adhere to commercial rules, for it stigmatizes those who aim at the highest price for their money, and who charge according to the risk of the loan, as extortioners and disreputable. It groans under the infliction of usury laws, and professes its charity towards men of doubtful credit by clamoring for their repeal. With exquisite cunning, it appropriates the rules of commerce, draws parallels where none exist, proclaims traffic in debt as free trade in money, and looks with covetous eyes on those swinging profits made by "Jews" and "disreputable" money brokers. Whilst veiling its own avaricious and time-worn features under the peacock pageantry and glitter of modern style and progress, it denounces the arguments of all who would place any restraint upon its unhallowed gains as the antiquated and fusty notions of a dark and remote generation. It has laid violent hands on every interest, substituted too often gold for grace, and introduced a censorship over both pulpit and press. It has destroyed all self-dependence, for it has brought upon the street a race of commercial beggars. It has destroyed all self-respect, for the men of commerce now cringe and fawn before a fellow mortal, who has very likely nothing better to offer than a bit of paper or a ledger inscription. It overturns economic principles by the root, and has the hardihood to challenge the precepts of Holy Writ. Its logic is either of that transcendental cast which is beyond our reach, or of that inconsequent type which discovers resemblances in

* See Dun, Boyd & Co.'s statistics.

things incongruous. It elevates cunning into a virtue under the name of shrewdness, and proclaims those who are successful in turning aside the right of the poor and the needy as men "skilled in finance." It has introduced a course of slavery and perfidy, which, in deception, meanness, and miserable drudgery has hardly had a parallel in the history of the world. W. B.

Art. V.—COMMERCIAL AND INDUSTRIAL CITIES OF THE UNITED STATES.

NUMBER LXXVII.

NEW ENGLAND TOWNS.

DOVER—EARLY SETTLEMENT—FISHING—INDIAN TRADE—SEPARATION OF NEW HAMPSHIRE FROM MASSACHUSETTS—POPULATION—WEST INDIAN TRADE—WAR—POPULATION IN 1800—FARMING AND SHIP-BUILDING—FIRST FACTORY, 1821—COTTON TRIUMPHS—NEW PRINT WORKS—GREAT SUCCESS—SHOE MANUFACTURING—SOUTHERN MARKETS—RAILROAD—COST OF LIVING—CARPET FACTORY—PRESENT POPULATION—PACKETS TO NEW YORK. EXETER—SETTLEMENT OF—ANNEXATION—VOTERS KILLED BY INDIANS—ORIGINATES STATESMEN—BIRTH-PLACE OF LEWIS CASS—COTTON MANUFACTURING—SUCCESS—WATER POWER—GAS PIPES—POPULATION. VERMONT TOWNS—BRATTLESORO'—SETTLEMENT—COL. BRATTLE—BOUNDARIES—POPULATION—FACTORIES—OPERATIVES—BANKS—TANNERY. ROCKINGHAM—FISHING—EARLY POPULATION—SITUATION—CONNECTICUT RIVER—INDUSTRIES—BANKS. WINDSOR—SETTLEMENT OF—EARLY OCCUPATIONS—DISPUTES—STATE CONSTITUTION—POPULATION—PRISON—EMPLOYMENT OF CONVICTS—ARMS COMPANY—UNITED STATES COURT.

New Hampshire has long been famous for the facility with which her sons have discovered and appropriated the natural advantages of the State for manufacturing purposes. Hers is not a soil which attracts the agriculturists, but it is one that serves the purpose of the manufacturers to great advantage. The sites that have been most favorable for that employment, became towns like Portsmouth, Manchester, Nashua, Dover, and Exeter, and these have known how to accumulate wealth by supplying the agriculturists of other States. The *New England Magazine* gives an account of the early settlement of Dover as follows:—

It is now two hundred and thirty-six years since two brothers, William and Edward Hilton, fishmongers, from London, with a few other persons, took possession of a neck of land at the head of navigation on the Piscataqua River, and made the first settlement in the State of New Hampshire, which sixteen years afterwards received the name of Dover. The settlement did not, for the first few years, increase very rapidly; for in 1631 there were only three houses in all that part of the Piscataqua, though eight years had elapsed since its first settlement. In 1633, however, Capt. Thomas Wiggin was sent over from England, by lords Say, Brook, and others, with about thirty settlers, who all landed in safety at Salem on the 10th of October, and, proceeding to Dover, took lots at the neck, and immediately commenced the erection of a meeting-house, and it is affirmed of a *brewery* also. With the advent of these new settlers originated the organized municipal existence of Dover. Fishing was the occupation of the brothers Hilton and the first emigrants, but trade with the Indians and the manufacture of lumber followed in due course, and about the year 1638, Richard Walderne (or Waldron) built a saw-mill and grist-mill at the lower

falls of the Cocheco, where the present city now stands. This enterprising man possessed great courage and administrative ability. He held several offices of distinction; amongst others, those of commander of the New Hampshire forces, acting president of the province, chief justice, representative and speaker of the general court of Massachusetts, before the dissolution, in 1679, of the union of New Hampshire with that State. His house was for fifty years a frontier trading post. In 1648, the tax-paying males in Dover numbered only fifty-four, but in 1668, they had increased to 155. The business of the town rapidly developed, a direct exporting trade was opened with the West Indies, and the small fishing settlement grew to a flourishing town. But reverse came. The breaking out of the French and Indian war in 1675, found Dover a frontier town, bordered by virgin forests which stretched away to Canada; possessing a scattered population, vexed by petty quarrels and local differences which had chiefly grown out of trading operations. Forgetting minor disquietudes in the common peril, the inhabitants made some attempts to secure themselves by fortifications, but for thirteen years the town was exposed to a series of attacks, in which houses were burned, and the inhabitants waylaid and shot, or carried captive to Canada. But the severest blow the little colony ever received from the Indian war, was in a memorable and destructive assault on the morning of the 28th of June, 1689, when four garrison-houses were destroyed, five other houses burned, twenty-three persons killed, and twenty-nine carried away into degrading, hopeless bondage. Major Walderne, who had rendered himself obnoxious to the Indians, was put to death by cruel tortures, each one of the savages cutting him with a knife across the breast, at every blow exclaiming, "I cross out my account." Several other attacks were made upon the town at different periods, but the savages were generally repulsed with more or less loss to the colonists. From the close of this struggle to the time of the Revolution, Dover continued to prosper. Its population in 1775 was 1,666. to which, if we add Madbury, Durham, Lee, and Somersworth, suburban thriving towns, which had sprung up in various parts of the territory originally belonging to Dover, we should have a population of 5,476. A regiment of the sons of Dover, commanded by Colonel John Waldron, served with credit during the whole of the revolutionary war. After the peace, the town grew less rapidly, its population in 1800 being 2,062; and in 1820, 2,871. The principal occupations of the inhabitants were farming and ship-building; but in the year 1821, the "Dover Factory Company" erected a small wooden building for the manufacture of cotton fabrics, and the foundation was laid for an entire change in the business of the place.

The great manufacturing interest of the North took the place of its nail mills, fulling mills, and oil mills, and thenceforward cotton was king. The Dover Factory Company were unfortunate, and sold out at a loss to the owners, who, in 1843, built the mills and print works of the Cocheco Manufacturing Company, three miles below the old location. The river at this place has a fall of thirty feet, being ten feet more than at the former site, and the increased power was improved to its utmost capacity. During the dry season, indeed, a considerable portion of the works are driven by steam, the company consuming annually 1,687 tons of coal in the cotton mills alone. The capital of this corporation is $1,300,000, being represented by 2,000 shares of the par value of $650 each; 1,175 operatives are employed, running 1,148 looms with 50,000 spindles. The amount of raw

cotton annually used amounts to 2,158,502 pounds, valued at 11.4 c. per pound, from which are manufactured 11,622,779 yards of cloth, which is printed by the same company, and sold for $1,116,153, leaving a gross profit of $151,323 82. The corporation is one of the wealthiest in New England, and their goods are extensively and favorably known. Messrs. Mason, Lawrence & Co. are the selling agents; Samuel W. Sweet, Esq., president of the corporation; Moses Paul, agent of the cotton mills, and George Matthewson of the print works. The monthly payments to operatives amount to $20,000. The affairs of the company are now in a very prosperous condition; on the 1st of July, 1859, a dividend of $30 per share was declared for the past six months, against a dividend of $25 for the previous half-year, and equivalent to over 4 1-2 per cent. The real estate of the company is valued at $1,007,599, and they have in reserve a cash surplus, after paying dividends and meeting a suspense account, of $112,482 87, thus making a total cash capital of $404,583 87. During the past ten years there has been a gross sale of manufactured goods to the amount of nearly $10,000,000, while the losses upon the same have averaged but little over one per cent of the sales. During that time shares which have been valued at $650, have given stockholders a dividend of 6.5 per cent per annum; and at a $500 valuation the average has been 7.84 per cent. About thirteen years ago the business of shoe manufacturing was introduced into Dover, and at present there are twelve manufacturers who make about 75,000 pairs of thick shoes per month, giving employment to hundreds of men and women, who receive in monthly payments about $25,000. All the shoes manufactured here are shipped to the Southern and Western markets. This branch of trade is on the increase, and Dover already turns out more shoes than any town in the State. The facilities for carrying on the business are excellent. The Boston and Maine Railroad furnishes convenient means of transportation for the raw material or the manufactured article. The cost of living is much less here than in the vicinity of the "Metropolis of New England," and consequently labor is cheaper than in the large shoe towns of Massachusetts.

Dover has also an extensive manufactory of painted carpets, erected about ten years since by Messrs. A. & J. B. Folsom, which gives employment to about fifty men, and produces from $75,000 to $100,000 worth of carpets yearly. There are also two or three large carriage factories, a flannel mill, machine shop, and a steam grist mill.

Dover is the shire-town of Stratford County; it received a city charter in 1855, and has now about 9,000 inhabitants. As we have intimated, the Cocheco River is navigable to Dover for vessels of the smaller class, and lines of packets ply between Dover and the ports of Boston and New York. The city is pleasantly situated, and from one or two elevated spots in the vicinity fine views are obtained of the surrounding country, extending into the neighboring State of Maine. Its business streets show a fair degree of activity. The residences of the inhabitants are plain and substantial, with very few architectural embellishments. On the whole, Dover may be pronounced an excellent specimen of a busy, thriving New England city.

The town of EXETER was settled in 1638, by the Rev. John Wheelwright, who had been banished from Massachusetts on account of his religious views. Three years afterwards, Exeter was annexed to Massachusetts, and many of the first settlers, being still under sentence of banishment, removed to Maine. From 1690 to 1712, Exeter suffered by the attacks of Indians

to such an extent that, during the year 1700, there were only twenty voters in the town; the number killed and taken captive being probably from forty to fifty persons. The inhabitants took an active part in the revolutionary war, and contracted heavy debts to furnish supplies for their townsmen in that struggle. This town is famous for being the birth-place of Lewis Cass, the present Secretary of State of the United States, the first eighteen years of whose life were spent here, and the house in which he was born, in 1782, is still shown. A famous institution in Exeter is the Phillips Academy, founded in 1781 by the liberality of John Phillips, LL. D., who, at his death in 1795, donated to it a large part of his estate. This institution has been the Alma Mater of some of the most famous statesmen, orators, and scholars of modern times, foremost among whom were the Hon. Daniel Webster, also Hons. Edward Everett, John G. Palfrey, George Bancroft, and Jared Sparks, the historians, with many others who take a front rank among the statesmen and scholars in the country. Exeter is the shire-town of Rockingham County, and has a fine court-house and town-hall built, at an expense of $32,000, and a new jail erected in 1857. The inhabitants are largely engaged in agriculture. The Exeter River at this place is navigable for the smaller class of vessels, and the falls here furnish a valuable water-power, which is improved by the Water Power and Mill Company and the Exeter Manufacturing Company, the former having a capital of $10,000. The last-named company have a capital of $165,000, and are engaged in the manufacture of cotton, employing 150 operatives, running 176 looms with 9,000 spindles, and manufacturing about 5,000 yards of cotton goods daily. This company commenced operations in 1828, and used to make No. 14 cotton. About five years since they commenced making finer work, No. 21 and 22 1-2, and put in new machinery. Their goods bear a high reputation, and their press for carding and packing is said to be superior to any in the country. The river here has a fall of thirteen feet, but during the dry season the mills are run by steam power. The factory is built of brick, 150 feet long by 40 feet wide, five stories high, with a new brick picker, machine-shop, and cloth room. Samuel Bachelder, Esq., is president of the company; Messrs. Johnson, Sewall & Co., of Boston, selling agents; and James R. Norris, resident agent. The New England Steam and Gas Pipe Company, located here, have a capital of $100,000. There are also extensive paper mills, where about $20,000 worth of paper is manufactured annually. The carriage-making business amounts to $75,000 annually, the largest firm getting out $50,000 worth in their large establishment, which is driven by steam-power. Morocco and other kinds of leather are produced to the amount of $25,000. The trade in wool amounts to $200,000 a year. There are two villages in Exeter; one is called the Paper-Mill Village, where, as its name implies, the manufacture of that article is extensively carried on; the other, the principal village, has many handsome residences and fine public buildings. Trains on the Boston and Maine Railroad stop here eight times daily. The population of Exeter is about 3,500.

The town of BRATTLEBORO', to which we propose to devote a portion of this article, is the oldest in Vermont. As early as 1724, the government of Massachusetts, of which State it was then supposed to form a part, commenced the erection of a block-house or fort at what is now called "Dummers Meadows," in the southeast part of the town. This fort was named Fort Dummer, in compliment to the Governor of the State, and was gar-

risoned by a small military force. The people suffered considerably from the attacks of the French and Indians, their exposed situation beyond the borders of civilization seeming to render them an easy prey; but in 1728 the garrison was withdrawn, and the fort converted into a truck-house. In 1753, the town received a charter, and was named Brattleboro', in honor of Col. William Brattle, of Boston, who was the principal proprietor. The settlement progressed but slowly, and the inhabitants were annoyed, and many of their energies paralyzed by the drawbacks and discouragements common to the early settlers of our country. In 1780, the town sent its first representative to the Legislature of New Hampshire, difficulties with New York, which prevented the boundary lines being definitely fixed, having probably stood in the way of their being represented earlier. The town was then prosperous, and has since risen steadily to its present flourishing condition. It is now quite a busy place, with some four thousand inhabitants; having a melodeon factory which employs twenty-five hands; three carriage manufactories, making from three to four hundred carriages yearly, and giving employment to fifty men; three machine shops; one iron foundry; a manufactory of sewing machines; a rule factory, employing fourteen persons; and a furniture manufactory, employing ten. A paper mill, which is in process of erection, will soon commence work. It has been built on the spot where a similar establishment was burned in the great fire of 1857. A woolen factory here gives employment to twenty operatives, and consumes fifteen hundred pounds of raw material weekly. The Brattleboro' Gas-Light Company, which went into operation last year, have a capital of $20,000, and are doing a very good business. There are two banks, having a combined capital of $250,000; and an institution for savings. The two water-cure establishments are capable of accommodating about three hundred patients, and are well patronized, as they give much satisfaction and are cheap, the prices of board varying from seven to ten dollars a week. The Vermont Asylum for the Insane at this place was founded by Mrs. Anna Marsh, who bequeathed to the institution the sum of $10,000, to which the Legislature of Vermont added $26,000. The buildings are of brick, and are very pleasantly situated. The institution is well known for its popularity and good management, and has, at the present time, about five hundred inmates. In the vicinity are two smaller villages, the first of which, West Brattleboro', is quite a resort for city boarders during the warm season, and is admired for its pleasant scenery, and clear, bracing mountain air. The town has two churches, two hotels, a tannery capable of tanning one thousand hides a year, and several smaller places of business of various kinds. The small village of Centerville is situated midway between those of Brattleboro' and West Brattleboro', and is a place of some business; it has an ax factory, a grist mill, a shoe-peg factory which makes from six to eight thousand bushels of shoe-pegs a year, and a large tannery, owned by Messrs. Keen, Reed & Bryant, of Boston, built some four or five years since, and capable of tanning about five thousand hides a year. Brattleboro' is situated on the west bank of the Connecticut River, and is connected with the town of Hinsdale, New Hampshire, on the opposite shore, by a substantial bridge, built in 1804. The population of Brattleboro' is 3,816.

Next to Brattleboro', ROCKINGHAM is worthy of notice. It was settled about the year 1753; the early inhabitants devoted most of their time to fishing, and the progress of the settlement was slow, and in 1771 the pop-

ulation was only 225. Bellows' Falls are in the Connecticut River, near the southeast corner of the town; the river above the falls is about twenty rods wide. A large rock divides the stream into two channels, and the water passes over the falls with enormous force; there are six or eight different falls within the space of half a mile, the whole descent of the river being about forty-two feet. The first bridge over the Connecticut was built here in 1785; it is 365 feet long, and is supported in the middle by the rock which separates the stream. The town of Rockingham has five pleasant villages, the principal one being that of Bellows' Falls. There are a woolen factory, a paper mill, an iron foundry in the town, and a shoe-peg factory, making seventy five bushels of shoe-pegs daily. At Bellows' Falls village the junction of four railroads is formed, viz., the Rutland and Burlington, the Vermont Valley, the Cheshire, and the Sullivan. The bank of discount and deposit has a capital of $100,000, and in the savings bank the deposited fund amounts to $200,000. The village is pleasantly situated and easy of access from all parts of New England. Its fine railroad facilities and great natural advantages undoubtedly destine it, eventually, to take a front rank among the towns of the State.

Windsor is quite an old town, having been settled in 1764 by Capt. Steele Smith, who emigrated hither with his family from Farmington, Connecticut. Before the close of the year sixteen other families located themselves here. Six years after its first settlement, the population was 203. The inhabitants took an active part in the boundary difficulties then pending between New York and New Hampshire. These disputes were however, settled, and Vermont was admitted as an independent State, and was admitted as the fourteenth State in the Union, on the 4th of March, 1791. In this town a convention was held in 1777, having for its object the adoption of a State Constitution. The first Legislature was convened here in 1778, and its annual sessions were held here until 1804, when the seat of government was removed to Montpelier, where it has since remained. The population of Windsor is about two thousand, and the soil is well adapted to agricultural purposes. Windsor is beautifully laid out on the elevated ground bordering the Connecticut River, and is one of the handsomest and most flourishing towns in the State. The inhabitants are enterprising, and many of them quite wealthy. A stone dam across Mill Brook, was constructed here in 1835, furnishing a large water-power, which is improved to a fair extent. The Vermont State Prison, located here, is a stone edifice, built in 1809. It is eighty-four feet long, thirty-six wide, and three stories high. It has a large workshop, and a building for the keeper and guards; the cost of these was $39,000. A building for solitary confinement was erected in 1832, at a cost of $8,000. It is one hundred and twelve feet long, forty feet wide, and four stories high. Within are imprisoned eighty convicts, all of whom are employed by Messrs. Lawson, Goodenough & Co., of New York city, in the manufacture of scythe snaths, of which they make twenty-five dozen a day. Messrs. L., G. & Co. are also engaged in manufacturing sewing machines, outside of the prison, where they make about ten machines daily. The Union Arms Company manufacture guns and machinery here; there are also manufactories of tin ware, furniture, harnesses, etc., etc. On Main-street a building is in progress, 60 by 80 feet, and three stories high. It is being built by the United States Government, of brick, stone, and iron, in the most substantial manner, and is to be used for the United States Court and Post-office. Underneath are cells for prisoners, and the cost is reported to amount to $77,000.

JOURNAL OF MERCANTILE LAW.

IMPORTANT OPINION ON THE TARIFF—THE QUESTION OF DUTY ON CAUSTIC SODA.

In the United States Circuit Court. Before Hon. Judge SMALLEY. Benjamin H. Field *vs.* Augustus Schell.

This is an action of assumpsit for money claimed to have been illegally exacted by the defendant, who is Collector of the port of New York, and paid by the plaintiff for duties upon the importation of an article called caustic soda. There were several importations, all since the passage of the tariff act of 1857, and entered as caustic soda, paying a duty of four per cent *ad valorem*. A duty of fifteen per cent was charged by the defendant, and paid under protest. It was agreed that the article of caustic soda was enumerated either in the tariff acts of 1842, 1846, or 1857. Much evidence was introduced, tending to show that the article in question bore a close similitude in material, quality, and the uses to which it was applied, to soda ash, which, under the tariff act of 1857, paid a duty of four per cent, and more nearly resembled soda ash than any other enumerated article. The court, among other things not excepted to, charged the jury that, if from the evidence they were satisfied that caustic soda resembled soda ash in its material, quality, and the use to which it was or might be applied, or either of them, and raise them to any other enumerated article, that four per cent duty only should have been charged, and their verdict should be rendered for the plaintiff for the excess. The jury returned a verdict for the plaintiff, and the defendant moves for a new trial, on the ground of an alleged misdirection of the court to the jury. Whether there was error in the charge of the court, depends upon the question whether the 20th section of the tariff act of 1842 was repealed by either of the acts of 1846 or 1857. That 20th section was as follows:—

That there shall be levied, collected, and paid on each and every non-enumerated article which bears a similitude either in material, quality, texture, or the use to which it may be applied, to any enumerated article chargeable with duty, the same rate of duty which is levied and charged on the enumerated article which it most resembles in any of the particulars before mentioned; and if any non-enumerated article most resembles two or more enumerated articles, on which different rates of duty are chargeable, there shall be levied, collected, and paid on such non enumerated article, the same rate of duty as is chargeable on the article it resembles paying the highest rate of duty; and on all articles manufactured from two or more materials, the duty shall be assessed at the highest rates at which any of the component parts may be charged.

The 3d section of the act of 1846 provides—

That from and after the 1st day of December next, there shall be levied, collected, and paid, on all goods, wares, and merchandise imported from foreign countries, and not specially provided for in this act, a duty of 20 per cent *ad valorem*.

The 12th section of the same act reads:—

Be it further enacted, that all acts and parts of acts repugnant to the provisions of this, be and the same are hereby repealed.

These sections, considered by themselves, would seem to indicate quite decidedly, an intention to repeal the 20th section of the act of 1842, and if this was an open question, I should have had great difficulty in coming to the conclusion that such was not their design and effect. It cannot now, however, be regarded as an open question. The Supreme Court, in the case of STUART, *et al.*, *vs.* MAXWELL, 16 How., 150, after an elaborate argument and full consideration, decided—

That there was no necessary repugnance between the act of 1846 and the 20th section of the act of 1842, and consequently the former did not repeal the lat-

ter, and the duty (which in that case was assessed under the 20th section of the act of 1842) was rightly assessed.

The case turned upon that question. It was the only point made or decided, and this court must be governed by it. It was argued by the defendant's counsel that in the case of STUART, *et al.*, *vs.* MAXWELL, the government sought to avail itself of this 20th section to enforce the payment of a higher rate of duty than it would otherwise have been entitled to, and thus increase the revenue; and that the decision being in favor of the government, was not applicable to this case. It is very difficult to see why if this 20th section is to operate in favor of the government in one case, to increase the revenue, it should not operate in a similar case against it, although it diminish the revenue. Why the government should be permitted to avail itself of this 20th section for the purpose of increasing the duties, and the importer should not be permitted, under the same or similar circumstances, to avail himself of it for the purpose of diminishing the duties, I am at a loss to conceive. But if there could, at any time, have been a doubt upon that question, it is removed by the case of ROSS *vs.* PEASLEE, 2 Curtis' Rep., 499, in which Justice CURTIS (who delivered the opinion of the court in STUART, *et al.*, *vs.* MAXWELL,) held that this 20th section was in force, and did operate to reduce the duties which in that case were from twenty to fifty per cent. That brings us to the act of 1857. Does that act repeal the 20th section of the act of 1842? There is much less reason for saying that it does, than for saying that the act of 1846 did. There is nothing in the act of 1857 which indicates any intention to extend the act of 1846, or in any way to change or interfere with the construction given thereto, further than generally to reduce the duties, take certain articles from one schedule and place them in another, and to put others into the free list. The case of STUART, *et al.*, *vs.* MAXWELL, was decided in 1853; and that of ROSS *vs.* PEASLEE in 1855. Congress, therefore, can hardly be supposed to have been ignorant of these decisions at the time the act of 1857 was passed, and I think it cannot be presumed that, with such knowledge, it intended to alter that important provision of the law, without some definite expression of that intention. There are no repealing words in the act of 1857, and neither from the phraseology nor the general purpose of the act can I see any reason for supposing that it was designed to have an effect on this 20th section, which the courts had decided the act of 1846 did not have. It is clear that the words "non-enumerated articles," in the 20th section of the act of 1842, not specially provided for in this act in the third section of the act of 1846, and not enumerated in said schedules in the 1st section of the act of 1857, mean the same thing and should receive the same construction. The distinction attempted to be drawn between them by the defendant's counsel cannot be sustained. This view of the subject is fully sustained by Judge GILES, in the Maryland district, in a case precisely like this, and in relation to this same article of caustic soda, (GAMBLE *et* GAMBLE *vs.* MASON,) reported in the Philadelphia *Law Register* for January, 1859. The result is, that the 20th section of the act of 1842 was neither repealed by the act of 1846 nor by that of 1857, but remains in force. There is, therefore, no error in the instructions given by the court to the jury, and there must be judgment on the verdict.

P. S.—Since writing this opinion I have submitted it and the case to Judge NELSON, which he has examined, and I am authorized to say that he fully concurs in the decision.

IMPORTANT ACTION ON A COMMERCIAL CONTRACT.

In the United States Circuit Court, at Chicago. Judge DRUMMOND presiding. Richard Atkinson *vs.* Gurdon S. Hubbard & Co.

Some time on or about the 4th day of November, 1858, Mr. J. K. FISHER, an extensive produce broker in this city, having several orders from different parties for the purchase of pork, called at the office of HUBBARD & HUNT, and ascertained from Mr. HUBBARD that they had one thousand barrels mess pork, which they would sell at $15 per barrel, February and March delivery, sellers'

option. FISHER agreed to buy the pork, and HUBBARD agreed to sell. FISHER then gave Mr. HUBBARD at different times the names of several persons as his principal, to each of whom Mr. HUBBARD objected for the reason that he did not know anything about them. FISHER, on the morning of the 6th of November, 1858, (HUBBARD & HUNT having declined each of the names before given them.) gave them the name of the plaintiff, and said he was a member of the firm of HEWITT & Co., of New York, and was in every way responsible, and if, when they wrote to their New York correspondent, (which they volunteered to do,) his reply *was not satisfactory*, then he was willing to put up security at any time. HUBBARD & HUNT both expressed their entire satisfaction, and said that was all right. FISHER at the time held money in his hands which belonged to ATKINSON, and with which he was ready at any time to put up the required security.

HUBBARD & HUNT wrote to New York to inquire about ATKINSON. FISHER, after allowing a reasonable time for a letter to get to New York and a reply to be received, called upon Messrs. HUBBARD & HUNT on several occasions to know if they had heard from New York, and whether they would require him to put up the security, and received a reply from Messrs. HUBBARD & HUNT that they had not heard. He called again on or about the 16th of November to make the same inquiry, and then, for the first time, was told by Mr. HUNT that they had made no contract. Mr. FISHER told Mr. HUNT that it was as fair a purchase as he had ever made, and he should hold them to it. On the 31st of March, 1859, the last day in which Messrs. HUBBARD & HUNT had the right to deliver the pork, Mr. FISHER called on them and demanded the pork, and tendered them the sum of $15,000 in gold. They declined to receive the money or to deliver the pork. From the 6th of November, 1858, until the 31st of March, 1859, there was a firm feeling and steady advance in the market, and on the 31st of March, pork was worth $16 75 per barrel. Such was in substance the proof on the part of the plaintiff, and upon which he claimed a contract was made on the 6th of November, 1858, and for a breach of which he claimed damages.

The defendants claimed that there was no contract made on the 6th of November, 1858, and that they had the right to make the contract or not, as they pleased, on hearing from New York—and introduced evidence to establish their view of the case, which in many particulars, in relation to the making of the contract, was conflicting with the evidence introduced by the plaintiffs. Of the amount of pork, the time of delivery, the price to be paid for the same, and the price on the 31st March, 1859, there was no dispute. The court instructed the jury "that if they believed the parties mutually understood, on the 6th of November, that the contract was complete and binding in case the reply from New York was satisfactory, and that in such event nothing further was to be done by either party to complete the contract, then the contract was binding, and the plaintiff was entitled to recover; but if both parties did not so mutually understand it, then the plaintiff could not recover."

The jury found a verdict for the plaintiff for $1,750.

The defendants have filed a motion for a new trial.

SHIPPING TO HAVRE.

An important decision, and one materially affecting the shipping interest of this country, has recently been rendered by the Tribunal of Commerce, in Havre, from which it would appear that the stowing of goods in vessels' poops, and rendering bills of lading therefor as "under deck," has been condemned, and all vessels carrying merchandise to that place stowed in their poops, run the same risk as though it was on deck, and consignees may recover damages in all cases wherein it is not so specified in the bills of lading, whether goods are damaged or not. The case in point was that of two barks from Mobile, with cotton, some of which was stowed in their poops, (not so specified,) and which sustained more or less damage from having got wet on the voyage. The verdict in both instances was in favor of the plaintiff, notwithstanding the fact that on one of the barks the poops was built with the vessel. Shipowners and agents will do well to note these facts, and by scrutinizing the bills of lading a little more closely, may avert the needless expenditure of hundreds of dollars.

COMMERCIAL CHRONICLE AND REVIEW.

FISCAL YEAR—AGGREGATE BUSINESS—DUTIES—ACCUMULATION OF CAPITAL—TENDENCY OF EXCHANGE TO THE ATLANTIC—CONTRACTION—DECREASED QUANTITY—IMPORTS TOO LARGE—COTTON CROP—HARVESTS—EXPORTS OF FOOD—GRAIN—VALUE—RATE OF INTEREST—HIGHER ABROAD—WAR RATES—AVERAGE RATES—NO ENTERPRISE—WAR CLOUDS IN EUROPE—LOANS—FREEDOM OF INDUSTRY—ABUNDANCE OF CURRENCY—PRODUCTS OF MINES—RATES OF INTEREST—NEW LOANS—TREASURY NOTES—SPECIE SHIPMENTS—RECEIPTS—RATES OF STERLING—REDUCTION OF SPECIE IN THE CITY—MINT—ASSAY-OFFICE—JULY INTERESTS—LARGE PAYMENTS—NEW YORK—BOSTON—MANUFACTURING DIVIDENDS—IMPROVED TRADE—DEMAND FOR COTTON—SITUATION OF CROPS—QUANTITY CONSUMED—VALUE EXPORTED.

THE fiscal year of the federal government closed at the port of New York with the month of June, and the result is a larger business than was ever before transacted in one year. For five years the aggregates have been as follows:—

	1856.	1857.	1858.	1859.	1860.
Exports ...	105,806,063	126,606,683	100,667,890	106,443,541	136,036,550
Imports ...	198,914,718	226,184,167	171,473,336	220,247,307	233,718,718
Total....	304,020,781	352,790,850	272,141,226	326,690,848	371,755,268
Duties...	42,724,000	42,270,000	27,435,000	34,910,000	37,662,000

The imports and exports have been, together, $19,000,000 more than for the great year 1857, and $100,000,000 more than in 1858. This large business has been done with lower rates for money than ever before was experienced in this country during an entire year. The fact shows the great accumulation of capital in this country, and also the want of adequate employment for it in those channels that have hitherto attracted it. While money has been so abundant on the Atlantic border, it has been scarce and high at the West and other indebted points, whence it has been drained off for the repayments of loans and debts. The same process has, to a certain extent, gone on between this country and Europe, as is manifest in the large exports of specie, which have reached a higher figure than ever before in one year. The course of business during the year has been towards contraction. The first quarter ending with September, the excess of imports over the same quarter of 1859 was $15,000,000; in the second quarter it was $10,000,000; in the third quarter it was $5,500,000; in the fourth quarter there was a decrease of $17,000,000. The markets had not warranted the large scale on which business commenced, and the results of importations were not satisfactory. The exports of produce, on the other hand, were large, but on a market that underwent many reactions. The cotton crop was very large, and a good portion of it very poor in quality. The peace of Europe was by no means well assured, and, lastly, the harvests of both England and the continent threatened failures. All these circumstances prevented much commercial activity, and were a drag upon the buoyancy of the markets. Nevertheless, the state of the harvests induced large exports of agricultural food, and in the six months ending with June, 1,488,511 bushels of wheat were exported, against 221,000 same time last year; also, 1,502,776 bushels of corn, against 101,775 corresponding period of the previous year. Of flour, 518,000 barrels went abroad, being an excess of 222,000 over the previous year. The receipts of produce from the interior have been very large in New York, reaching, of all

grains, 14,800,000 bushels, against 7,700.000 in the previous year. This represents an increase of $7,000,000 in remittances in those grains from the West, where the crops are very large, and promise now to come forward in great abundance. While the Western and Southern crops have poured abundance into the Eastern markets, there has been no revival of any enterprises which require capital, and the rates for its employment have not been such as to retain paying capital in face of the state of affairs in Europe, where political uneasiness induces most large houses to keep considerable means in hand. The effect of war upon the rate of interest in the market is fully illustrated in the following summary of the changes produced by the French war of 1859 :—

	At the beginning of the war, rose	And with establishment of peace, fell
Frankfort	from 3½ to 4½ per cent	from 4½ to 3 per cent
Amsterdam	" 3 to 3 "	" 3 to 3 "
Paris	" 3 to 4 "	" 4 to 3½ "
Bremen	" 3 to 6 "	" 6 to 3 "
London	" 2½ to 4½ "	" 4½ to 2½ "
Hamburg	" 2 to 5 "	" 5 to 1½ "

It further appears that the following were the average annual rates of discount during the last six years :—

	1854.	1855.	1856.	1857.	1858.	1859.	1860.
Frankfort	3½	3½	4½	4½	3½	3½	2
Amsterdam	3	3½	4½	5½	3⅝	3	3
Paris	4½	4⅝	5½	6½	3⅝	3½	3½
Brem n	4	4½	5½	6½	3½	4	3½
London	5½	4½	5½	6½	3½	2½	4
Hamburg	2½	3½	6½	6½	2⅝	2½	2

The low rates for money are the result of doubts which prevent people from engaging in trade, and as capital does not cease to accumulate during those doubts, from the efforts of the working many, its value falls. A settlement of the affairs of Italy, and an understanding between the great powers, by removing fears, would induce the greatest activity and be followed by a rise in money. There have been several new loans proposed, to take advantage of the low prices of money. Among these, Russia asks for $40,000,000, and France, it was rumored, proposes a loan of $80,000,000, to lend to manufacturers to enable them to stand the reductions of the duties. Under the prohibitive system their old machinery and materials could be made to withstand competition. If the monopoly is removed, they must use as good machinery as their competitors, and the government proposes to lend them the money to get it. Such a proposition is certainly not borne of war projects. Freedom of industry will widen the markets for American produce, as well food as raw material, and both these promise to become largely in demand for the coming year. Gold has certainly figured high as an export—more having been sent abroad than the mines have produced—but the supply is still quite sufficient for all purposes of currency, and other capital is quite abundant. Towards the close of June money came to be a little more in demand, and prices were better. The rates, however, did not stand, and they were as follows :—

	On call.		Indorsed.		Single names.	Other good.	Not well known.
	Stocks.	Other.	60 days.	4 a 6 mos.			
Jan. 1st, 1859.	4 a 4½	4 a 5	4 a 5	5 a 6	6 a 7	7 a 8	8 a 10
Feb. 1st.....	5 a 6	6 a 7	5 a 6	6 a 7	7 a 7½	8 a 9	9 a 10
Mar. 1st.....	4 a 5	4½ a 6	4½ a 5½	5½ a 6½	6 a 7	7 a 8	9 a 10
Apr. 1st.....	4 a 5	5 a 6	5 a 5½	6 a 6½	6½ a 7	8 a 9	9 a 10
May 1st.....	5 a 6	6 a 7	6 a 6½	6½ a 6	7 a 9	9 a 10	10 a 12
Jun. 1st.....	6 a 7	7 a 8	6½ a 7	7 a 8	8 a 9	9 a 10	10 a 12
July 1st.....	5 a 6	6 a 7	6½ a 7	7 a 7½	8 a 9	10 a 12	12 a 15
Aug. 1st.....	6 a 7	7 a 8	6½ a 7½	7 a 8	8 a 9	11 a 13	12 a 15
Sept. 1st.....	5½ a 6	7 a 8	6 a 7	7 a 7½	8 a 8½	11 a 14	12 a 16
Oct. 1st.....	5½ a 7	6 a 7	6½ a 7	7 a 8	8 a 9	10 a 12	12 a 18
Nov. 1st.....	5 a 5½	6 a 7	6½ a 7½	7½ a 8	8½ a 9½	12 a 15	12 a 18
Dec. 1st.....	5 a 5½	6 a 7	6 a 7	7 a 8½	8 a 9	9 a 10	12 a 18
Dec. 17th.....	5½ a 6	6 a 7	7 a 7½	7½ a 8½	8 a 9	9 a 10	12 a 18
Jan. 1st, 1860..	6 a 6½	6½ a 7	7 a 7½	7½ a 8½	7½ a 8	9 a 10	12 a 18
Jan. 15th.....	7 a 7½	7 a 7½	8½ a 9	9 a 9½	9 a 10	10 a 11	15 a 20
Feb. 1st.....	6 a 6½	7 a 7½	8½ a 9	9 a 9½	9 a 10	11 a 12	15 a 20
Feb. 15th.....	5 a 6	6 a 7	7 a 7½	7½ a 8	8½ a 9½	10 a 12	15 a 18
Mar. 1st.....	5½ a 6	6 a 7	7 a 7½	7½ a 8	8½ a 9½	10 a 12	15 a 18
Mar. 15th.....	5 a 5½	5½ a 6	6 a 7	7½ a 8	8½ a 9½	10 a 12	15 a 18
Apr 1st.....	5 a 5½	6 a 6½	5½ a 6	6 a 6½	5½ a 7½	9 a 10	11 a 13
Apr. 15th.....	5 a 5½	6 a 6½	5½ a 6	6 a 6½	6½ a 7½	9 a 10	11 a 13
May 1st.....	5 a 5½	6 a 6½	5 a 6	6 a 6½	6½ a 7½	9 a 10	11 a 12
May 15th.....	5 a 6	6 a 6½	5 a 6	6 a 7	6½ a 7½	9 a 10	10 a 12
June 1st.....	4½ a 5	6 a 6½	5 a 6	6 a 7	6½ a 7½	8 a 9	9 a 10
June 15th	4½ a 5	5 a 6	4½ a 5	5 a 5½	5½ a 6	6 a 7½	8 a 9
July 1st.....	5 a 5½	5½ a 6	.. a 5	5 a 6	5½ a 6	7 a 7½	8 a 9
July 15th.....	5 a 5½	5½ a 6	.. a 5	5 a 6	5½ a 6	7 a 7½	8 a 9

There were several loans done during the month. The Secretary of the Treasury renewed several millions of treasury notes at 5½ per cent. The State of Virginia has issued proposals for a loan of $6,000,000 at 6 per cent. A New York City Water Stock loan for $228,900, at 6 per cent, was offered, and awarded at 2½ per cent premium. The whole amount of bids was $1,338,200. A State 6 per cent loan of $1,200,000 was taken at 101.17 a 101.71. Messrs. E. Whitehouse, Morrison & Son have offered a new loan for $500,000 8 per cent land grant mortgage, redeemable 1878. This is for the Texas and New Orleans Railroad Company, and is secured by a mortgage upon 106 miles of railroad, that has cost $2,920,000, and also upon 768,000 acres of land. The coupons are secured by a separate trust of 76,800 acres of land, valued now at $600,000. The State of Texas donated sixteen sections of land per mile, and towns and individuals have increased the grant. The whole amount of construction bonds is $1,500,000.

With the abundance of money, the shipments of specie continue on a liberal scale, comparatively as follows :—

GOLD RECEIVED FROM CALIFORNIA AND EXPORTED FROM NEW YORK WEEKLY, WITH THE AMOUNT OF SPECIE IN SUB-TREASURY, AND THE TOTAL IN THE CITY.

	1859.		1860.			
	Received.	Exported.	Received.	Exported.	Specie in sub-treasury.	Total in the city.
Jan. 7.....	.....	$1,052,558	.....	$85,080	$7,737,965	$25,600,699
14.....	$1,376,300	218,049	1,788,666	88,482	7,729,646	26,470,512
21.....	.....	567,398	.....	259,400	8,352,485	27,585,970
28.....	1,210,713	467,694	1,760,582	81,800	8,957,123	29,020,862
Feb. 4.....	.....	606,969	94,569	427,457	9,010,569	28,984,870
11.....	1,319,923	361,550	1,476,621	92,350	9,676,732	29,464,299
18.....	.....	1,013,780	.....	592,997	10,012,572	30,603,762
26.....	1,287,967	358,554	1,393,179	202,000	8,955,203	29,729,199

	1859.		1860.			
	Received.	Exported.	Received.	Exported.	Specie in sub-treasury.	Total in the city.
Mar. 3.....	.....	1,427,556	382,503	667,282	8,734,028	31,820,840
10.....	933,180	307,106	1,198,711	115,473	8,237,909	30,139,089
17.....	.....	870,578	152,000	429,260	8,099,409	31,271,247
24.....	.....	208,955	895,336	465,115	8,122,672	31,408,876
31.....	1,032,314	1,348,059	155,110	706,006	8,026,492	31,447,251
Apr. 7.....	.....	576,107	.....	310,088	7,562,885	30,162,017
14.....	1,404,210	1,687,104	1,146,211	630,010	7,714,000	31,640,982
21.....	.....	1,496,889	.....	241,503	7,531,483	30,764,897
28.....	1,723,352	1,680,748	1,455,337	1,774,767	7,668,723	30,848,532
May 5.	.....	2,169,197	.....	2,355,117	7,041,143	30,856,889
12.....	1,480,115	1,926,491	1,382,753	533,881	6,539,414	29,319,801
19.....	.....	2,223,578	.....	1,251,177	6,864,148	30,599,341
26.....	1,938,669	5,126,643	1,519,703	1,317,773	6,982,660	30,414,433
June 2.....	.....	2,325,972	.....	1,719,138	6,621,100	31,196,557
9.....	1,513,978	1,877,294	....	1,542,466	6,620,622	30,406,203
15.....	.....	1,669,263	1,385,652	2,526,478	6,426,755	30,537,000
22.....	.....	1,620,731	.....	1,417,757	6,326,894	29,677,815
29.....	2,041,237	1,861,163	1,541,580	1,962,776	6,253,357	28,717,607
July 9.....	.....	1,398,885	... .	1,166,773	5,187,468	27,939,162
14.....	1,736,861	2,495,127	1,514,884	1,283,135	5,404,367	28,156,061
Total.....	18,998,666	38,978,482	19,223,718	28,423,055	.....	.....

The amounts were, latterly, not so large as for corresponding dates last year. The exports from Boston and New York compare as follows, January 1 to July :—

	1859.	1860.
Boston.....	$3,768,675	$839,956
New York.....	35,088,470	22,139,920
Total.....	$33,853,145	$22,979,876

The rates of sterling bills were not such as to warrant so active operations on their face. They were as follows :—

RATES OF BILLS IN NEW YORK.

	London.	Paris.	Amsterdam.	Frankfort.	Hamburg.	Berlin.
Jan. 1..	9 a 9⅜	5.18¾ a 5.17½	41⅝ a 41⅝	41¾ a 41⅞	36¼ a 36¾	73 a 73½
15..	8¼ a 9	5.21½ a 5.18¾	41½ a 41½	41½ a 41½	36⅜ a 36⅝	73¼ a 73½
Feb. 1..	8⅞ a 9	5.18¾ a 5.17½	41½ a 41½	41⅝ a 41¾	36¾ a 36⅝	73⅜ a 73⅝
15..	8½ a 9	5.18¾ a 5.17½	41⅜ a 41½	41½ a 41⅝	36½ a 36½	73⅜ a 73½
Mar. 1..	8⅝ a 9	5.17½ a 5.15	41½ a 41¾	41¾ a 41⅞	36⅝ a 36⅞	73⅝ a 73⅞
15..	8⅝ a 8⅞	5.17½ a 5.15⅝	41⅝ a 41¾	41⅝ a 41¾	36⅝ a 36¾	73½ a 73⅝
Apr. 1..	8⅝ a 8⅞	5.18¾ a 5.16½	41½ a 41⅝	41½ a 41⅝	36⅝ a 36¾	73½ a 73⅝
15..	8⅝ a 8⅞	5.16½ a 5.17½	41⅝ a 41½	41⅝ a 41¾	36½ a 36¾	73½ a 73⅝
May 1..	9¼ a 9¼	5.13¼ a 5.12½	41½ a 41¾	41⅞ a 42	36¾ a 36⅞	73½ a 73¾
15..	9⅝ a 9⅝	5.13¾ a 5.13½	41⅝ a 41⅞	41⅞ a 42	36¾ a 37	73¾ a 73⅞
Jun. 1..	9⅝ a 9¾	5.13½ a 5.12½	41¾ a 41⅞	41⅞ a 42	37 a 37½	73¾ a 73⅞
15..	9½ a 9¾	5.13¾ a 5.12½	41⅝ a 41¾	41¾ a 42	36¾ a 37½	73⅝ a 73¾
July 1..	9½ a 9⅞	5 13¾ a 5.13½	41⅝ a 41¾	41⅞ a 42	36¾ a 37	73¾ a 73⅞
15..	9½ a 9⅞	5.13¾ a 5.13½	41½ a 41¾	41¾ a 41⅞	36¾ a 37	73¾ a 73⅞

The shipments caused some reduction in the amount held in the city, reducing it nearly two and-a-quarter millions from the close of May. Of the reduction a considerable portion was from the federal treasury. The arrival of specie from the interior to the seaboard was sufficiently large to supply the shipments abroad. The exchanges last year presented the same effect. The operations of the mint and the assay-office have been small, most of the specie going abroad as it arrives. The assay-office returns were as follows :—

NEW YORK ASSAY-OFFICE.

	Foreign.				United States.			Payments in	
	Gold.		Silver.			Silver.			
	Coin.	Bullion.	Coin.	Bullion.	Gold.	Coin.	Bullion.	Bars.	Coin.
Jan.	14,000	18,000	11,200	14,000	2,478,000	1,800	20,000	647,000	1,910,000
Feb.	5,000	28,000	6,500	24,000	951,000	....	7,500	932,000	90,000
Mar.	8,000	15,000	23,400	5,500	267,000	1,100	2,500	180,000	142,500
Apr.	8,000	32,000	14,500	10,000	183,000	3,700	3,800	187,000	70,000
May	11,200	20,800	25,500	18,000	176,000	7,000	16,500	230,000	45,000
June	12,000	19,000	10,000	4,000	147,000	1,750	2,750	158,000	38,500
Tot.	58,200	132.800	91,100	75,500	4,202,000	15,350	55,050	2,334,000	3,296,000
'59	51,000	66,000	250,580	45,500	2,060,000	11,900	29,620	2,024,000	805,600

The mint at Philadelphia shows a much diminished action, as follows :—

UNITED STATES MINT, PHILADELPHIA.

	Deposits.		Coinage.			
	Gold.	Silver.	Gold.	Silver.	Cents.	Total
January.....	$200,000	$41,000	$1,024,563	$41,000	$24,000	$1,090,568
February.....	1,838,578	35,573	1,632,160	21,600	24,000	1,677,760
March	144,478	82,255	317,451	132,989	29,000	479,440
April.....	281,891	49,764	252,756	38,431	30,000	321,188
May.....	90,828	72,468	133,004	81,100	35,000	249,104
June.....	54,893	54,676	63,718	97,160	24,000	184,878
Total, 1860.	$2,630,665	$345,716	$3,323,652	$412,186	$166,000	$4,002,988
Total, 1859.	679,860	487,880	626,547	613,500	179,000	2,586,787

The accumulation of money at the different reservoirs, preparatory to the July dividends, caused some increase in the value of money, which again subsided when the payments were made. These payments were pretty large. The New York banks paid out $1,507,924, and the several States, and companies, and federal government carries the payments up to the neighborhood of $9,000,000. In Boston, according to the very accurate report of J. G. Martin, broker, the payments were, this year and last, at that point, as follows, July 1st :—

	1859.	1860.
Miscellaneous.....	$68,755	$145,178
Interest on bonds.....	92,858	859,772
Manufacturing dividends.....	575,600	962,550
Railroad dividends.....	1,033,523	1,121,259
Total, July, 1859.....	$2,270,736	$3,088,759
Jan., 1859.....	2,435,342	.....
July, 1858.....	1,834,236	.....
Jan., 1858.....	1,908,732	.....

There are other companies that will probably make dividends about this time, but not yet officially declared—among which are the Boston Exchange Company (quarterly,) Firemen's Insurance Company, Hamilton Woolen (quarterly,) and Massachusetts Mills Manufacturing Companies. Also, New Bedford and Taunton Railroad. The St. Louis Merchants' Bank dividend is to Boston stockholders. The dividends payable in Charleston in July were $624,104, on banks, railroads, &c.

The total of dividends for July is larger than that of a year ago, and the list must be satisfactory to the holders of the numerous stocks.

The increase in manufacturing dividends is decidedly gratifying, since it indicates the prosperity of general trade, as well as of the local companies. The demand from the spinners for raw cotton has greatly increased in the last three

months, and in that period it has been as large as for the corresponding period of 1859. The crop movement of cotton has been as follows :—

	1859.		1860.
Stock, September 1.....bales	101,025		149,287
Receipts to July 1.....	3,633,224		4,400,481
Total.....	3,734,249		4,549,668
Exports	2,815,056	3,659,467	
Stock, July 1.....	245,816	258,070	
	3,060,872		3,917,543
U. S. consumption to July 1.....	673,377		582,125
" " to Mar. 10....	481,016		332,722
" " Mar. 10 to July 1	192,316		199,403

The exports of cotton have been 844,000 bales more than last year, giving a value of $40,000,000 in excess of last year.

Although the imports for the fiscal year ending June 30, show a larger amount than ever before, yet towards the close of the year there has been a diminished activity. For the six months since January, the decline was, as compared with last year, $12,000,000, and for the month of June, being the last of the year, $5,000,000, entered for consumption. The entries for warehouse under the diminished receipts were less than last year. The receipts for June are as follows:—

FOREIGN IMPORTS AT NEW YORK IN JUNE.

	1857.	1858.	1859.	1860.
Entered for consumption.....	$2,471,723	$6,652,563	$14,909,315	$11,870,400
Entered for warehousing	11,540,136	2,403,733	5,494,253	2,765,008
Free goods.....	957,366	953,014	3,180,361	4,487,109
Specie and bullion	369,901	102,132	485,891	38,272
Total entered at the port.....	$15,339,126	$10,116,442	$24,069,821	$19,160,789
Withdrawn from warehouse	781,099	2,360,140	2,369,231	2,269,377

The quantity of goods entered for consumption, although very large as compared with 1857 and 1858, yet they are less than for 1856. The quantity entered for warehouse does not much exceed the withdrawals. The business for the six months shows a considerable accumulation in warehouse, as large as for the same period last year, although the aggregate arrivals are much less. The quantity put on the market is less than last year, but there has been a comparative diminution in the stock in bond. The movement has been as follows:—

FOREIGN IMPORTS AT NEW YORK FOR SIX MONTHS, FROM JANUARY 1ST.

	1857.	1858.	1859.	1860.
Entered for consumption.....	$65,287,874	$36,320,520	$91,829,562	$79,945,689
Entered for warehousing.....	41,114,796	12,236,253	19,266,384	20,914,902
Free goods	9,224,745	11,449,498	16,942,984	16,170,648
Specie and bullion	5,352,012	1,778,363	1,125,943	686,837
Total entered at the port.....	120,929,427	$61,784,634	129,164,874	117,718,076
Withdrawn from warehouse.....	13,145,261	21,911,964	11,515,721	10,315,657

The imports of the whole fiscal year show an excess even over the high figures of 1857, and the average of the two years now closed is also higher than for that year:—

FOREIGN IMPORTS AT NEW YORK FOR FISCAL YEAR ENDING JUNE 30.

	1857.	1858.	1859.	1860.
Entered for consumption.....	141,430,109	$94,019,659	158,451,780	164,881,435
Entered for warehousing.....	62,275,672	44,463,806	32,665,650	38,523,572
Free goods.....	16,036,530	23,665,487	27,518,177	27,936,396
Specie and bullion.....	6,441,855	9,324,384	1,621,700	2,377,315
Total entered at the port.....	226,184,167	171,473,336	220,247,307	233,718,718
Withdrawn from warehouse.....	27,950,212	49,876,593	27,103,299	.....

If we separate the aggregate dry goods imports from the general merchandise, we find that the increase in the importations is almost altogether in dry goods, since the supply of the other kinds is less than for last year, and much less than for 1857 :—

DESCRIPTION OF IMPORTS FOR THE YEAR ENDING JUNE 30.

	1857.	1858.	1859.	1860.
Dry goods.....	$92,699,088	$67,317,736	$93,549,083	$107,843,205
General merchandise.....	133,485,079	104,155,600	125,086,524	123,498,198
Total imports.....	226,184,167	171,473,336	218,635,607	231,341,403

The several heads of dry goods give us the comparative receipts of each description. We find the decline for the month has been most in cotton and wool:—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR THE MONTH OF JUNE.

ENTERED FOR CONSUMPTION.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	$96,729	$997,331	$2,826,272	$1,640,773
Manufactures of cotton.....	115,841	319,076	1,498,559	730,849
Manufactures of silk.....	74,356	903,870	2,192,924	1,816,948
Manufactures of flax.....	26,212	138,650	645,421	274,791
Miscellaneous dry goods.....	86,985	144,842	116,884	356,792
Total.....	$349,623	$2,503,769	$7,280,060	$4,820,153

WITHDRAWN FROM WAREHOUSE.

	1857.	1858.	1859.	1860.
Manufactures of wool	$61,669	$164,018	$68,052	$115,300
Manufactures of cotton.....	39,504	90,404	34,040	42,179
Manufactures of silk	29,972	136,210	42,336	91,761
Manufactures of flax.....	23,060	97,513	44,573	27,828
Miscellaneous dry goods.....	4,447	44,021	13,967	19,893
Total.....	$158,652	$532,166	$203,568	$297,961
Add entered for consumption	349,623	2,503,769	7,280,060	4,820,153
Total thrown upon market...	$508,275	$3,035,935	$7,483,628	$5,118,114

ENTERED FOR WAREHOUSING.

	1857.	1858.	1859.	1860.
Manufactures of wool....	$1,345,199	$172,274	$504,022	$387,213
Manufactures of cotton	471,360	41,082	141,817	153,696
Manufactures of silk.....	1,046,696	31,711	115,020	138,220
Manufactures of flax.....	159,012	35,098	66,863	139,945
Miscellaneous dry goods.....	331,963	16,744	57,255	25,815
Total.....	$3,354,503	$296,909	$884,977	$714,889
Add entered for consumption	349,623	2,503,769	7,280,060	4,820,153
Total entered at the port....	$3,704,126	$2,800,678	$8,165,037	$5,535,042

The receipts of June have, to some extent, accumulated in bond, but not so large as last year. The operations for the six months show little change in this respect. The contrast is very strong with the same month of 1857. We annex a comparative statement for the first six months of each of the last four years:—

IMPORTS OF FOREIGN DRY GOODS AT THE PORT OF NEW YORK, FOR SIX MONTHS, FROM JANUARY 1st.

ENTERED FOR CONSUMPTION.

	1857.	1858.	1859.	1860.
Manufacturesof wool.....	$7,408,256	$4,975,813	$16,207,554	$13,983,617
Manufactures of cotton.....	3,948,436	3,830,264	12,888,117	8,795,760
Manufactures of silk.....	11,321,320	6,610,179	15,517,899	16,734,144
Manufactures of flax.....	3,070,348	1,589,516	5,320,997	3,705,704
Miscellaneous dry goods.....	3,232,375	1,365,178	2,741,693	7,570,898
Total.....	$33,980,735	$18,310,950	$52,676,260	$45,770,123

WITHDRAWN FROM WAREHOUSE.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	$1,043,840	$2,197,129	$330,197	$1,278,609
Manufactures of cotton.....	1,762,481	2,815,359	1,063,211	1,661,507
Manufactures of silk.....	1,201,966	2,389,354	440,139	902,687
Manufactures of flax..... ...	735,999	1,455,823	619,255	497,392
Miscellaneous dry goods.....	343,984	853,326	231,026	377,816
Total.....	$5,088,270	$9,710,991	$3,183,828	$4,718,011
Add entered for consumption ...	33,980,735	18,310,950	52,676,260	45,770,123
Total thrown on market....	$39,069,005	$28,021,941	$55,860,088	$50,488,134

ENTERED FOR WAREHOUSING.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	$4,114,827	$1,121,271	$1,548,461	$1,889,173
Manufactures of cotton.....	2,094,350	1,378,428	747,430	1,426,629
Manufactures of silk.....	3,421,398	843,899	892,149	955,608
Manufactures of flax.....	1,294,094	540,508	358,141	215,477
Miscellaneous dry goods.....	881,308	375,263	242,452	395,168
Total.....	$11,805,977	$4,259,369	$3,288,633	$4,885,851
Add entered for consumption ...	33,980,735	18,310,950	52,676,260	45,770,123
Total entered at the port...	$45,786,712	$22,570,319	$55,964,893	$50,655,474

The total for the fiscal year has been larger than for any previous year, not excepting 1858, when there was a sharp reaction from the small business of 1857. The total put upon the market for the year is very nearly $2,000,000 less than the amount received:—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR THE FISCAL YEAR ENDING JUNE 30.

ENTERED FOR CONSUMPTION.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	$20,261,326	$17,035,032	$28,275,434	$31,437,083
Manufactures of cotton.....	15,813,299	9,012,911	19,008,825	18,339,131
Manufactures of silk.....	25,192,465	17,581,099	26,740,909	33,683,706
Manufactures of flax	6,857,433	3,701,555	8,583,246	8,548,281
Miscellaneous dry goods.....	6,709,004	3,761,788	4,890,755	5,469,601
Total.....	$74,833,527	$51,092,385	$87,494,169	$97,477,801

WITHDRAWN FROM WAREHOUSE.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	$2,929,179	$6,369,118	$3,245,046	$3,888,431
Manufactures of cotton.....	2,492,516	4,018,593	1,750,716	2,466,919
Manufactures of silk.....	2,004,190	5,894,970	1,308,739	1,896,011
Manufactures of flax.....	1,100,183	2,215,427	1,292,722	911,214
Miscellaneous dry goods	601,025	1,385,173	789,773	685,293
Total.....	$9,127,103	$19,383,581	$8,387,046	$8,497,868
Add entered for consumption....	74,833,527	51,092,385	87,494,169	97,477,801
Total thrown on market....	$83,960,630	$70,475,766	$95,881,215	105,975,669

ENTERED FOR WAREHOUSING.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	$6,081,505	$5,028,533	$2,647,814	$3,981,742
Manufactures of cotton.	3,780,715	4,048,580	1,416,148	2,929,175
Manufactures of silk.....	4,447,447	3,667,521	776,862	1,778,646
Manufactures of flax.....	2,228,768	1,964,891	719,606	904,693
Miscellaneous dry goods.....	1,247,126	1,515,876	494,489	771,147
Total.....	$17,835,561	$16,225,351	$6,054,914	$10,365,404
Add entered for consumption....	74,833,527	51,092,385	87,494,169	97,477,801
Total entered at the port....	$92,669,088	$67,317,736	$93,549,083	107,843,205

In order to distinguish the dry goods from the general imports, we have compiled a little table which gives at a single glance the whole imports of dry goods for the year, as compared with the preceding three years:—

IMPORTS OF DRY GOODS AT NEW YORK FOR THE YEAR ENDING JUNE 30.

	1857.	1858.	1859.	1860.
Manufactures of wool	$26,342,831	$22,063,565	$30,923,248	$35,418,825
Manufactures of cotton.....	19,594,014	13,061,441	20,419,968	21,268 306
Manufactures of silk.....	29,689,912	21,248,620	27,517,771	35,162 352
Manufactures of flax	9,086,201	5,666,446	9,302,852	9,452 974
Miscellaneous dry goods....	7,956,130	5,277,664	5,385,244	6,240,748
Total imports.....	$92,669,088	$67,317,736	$93,549,083	$107,343,205

A large portion of the increase has been in silks. The import of woolens has, however, been very considerable.

The following will show the total receipts for cash duties, at the port of New York, for the different periods named in our import statement:—

CASH DUTIES RECEIVED AT NEW YORK.

	1857.	1858.	1859.	1860.
In June.....	$677,811 29	$1,625,663 00	$3,314,429 55	$2,724,193
Previous five months..	18,615,701 02	9,403,449 00	16,197,752 44	15,665.485
Total six months ...	$19,293,521 31	$11,029,112 00	$19,512,181 99	$18,389,679
Total fiscal year....	42,271,645 74	27,434,667 00	34,899,800 48	37,711,740

The exports from New York to foreign ports for the month of June are very large, larger than for the same month in any preceding year. This has been due to improved exports of food, as well as to the continued shipments of cotton. The exports of specie have nevertheless been large, as follows:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE MONTH OF JUNE.

	1857.	1858.	1859.	1860.
Domestic produce	$5,395,312	$6,382,939	$4,880,395	$8,307,774
Foreign merchandise (free)	732,128	158,759	126,255	200,464
Foreign merchandise (dutiable)	512,349	350,990	187,522	486,228
Specie and bullion	7,939,354	594,174	7,496,981	8,842,080
Total exports	$14,579,143	$7,486,872	$12,691,153	$17,836,546
Total, exclusive of specie	6,639,789	6,892,689	5,194,172	8,994,466

The total exports from New York to foreign ports, exclusive of specie, since January 1st, are larger than for the first six months of any previous year. On the other hand, the exports of specie are less than for the same period of either 1859 or 1857:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR SIX MONTHS, FROM JANUARY 1.

	1857.	1858.	1859.	1860.
Domestic produce	$34,451,640	$28,580,392	$28,435,582	$28,775,862
Foreign merchandise (free)	1,908,177	782,561	1,384,318	1,719,475
Foreign merchandise (dutiable)	2,301,897	2,280,425	1,789,363	3,092,509
Specie and bullion	22,398,062	12,359,959	33,197,972	21,579,752
Total exports	$61,059,776	$44,003,337	$64,807,235	$65,147,598
Total, exclusive of specie	38,661,714	31,643,378	31,609,263	43,567,846

The whole fiscal year gives a larger export of produce then for any year except 1857, but the specie export has been larger than ever before. This is no doubt due, to some extent, to the slackness of business here requiring less money, and to the disturbed state of Europe, which induces greater prudence there:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE FISCAL YEAR ENDING JUNE 30.

	1857.	1858.	1859.	1860.
Domestic produce	$75,928,942	$55,931,987	$53,894,893	$70,249,811
Foreign merchandise (free)	2,396,903	3,104,160	2,202,863	3,335,038
Foreign merchandise (dutiable)	3,932,370	7,309,672	3,596,336	6,354,055
Specie and bullion	44,348,468	34,322,071	46,839,444	58,097,646
Total exports	126,606,683	100,667,890	106,443,541	138,036,550
Total, exclusive of specie	82,258,215	66,345,819	59,604,097	79,938,904

The apparent balance of the business of the port, which was $100,000,000 against it in 1857, and $114,000,000 against it last year, is this year but $98,000,000 against it. This balance is of course only apparent since the excess of exports from Southern ports more than counterbalances the excess of imports here. The export of specie still continues, but exchanges are heavy.

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

REAL AND PERSONAL PROPERTY IN THE CITY OF NEW YORK.

RELATIVE VALUE OF THE REAL AND PERSONAL ESTATE IN THE CITY AND COUNTY OF NEW YORK, AS ASSESSED IN 1859 AND 1860.

Wards.	1859. Real estate.	1860. Real estate.	Increase. Real estate.	Decrease. Real estate.
1	$37,102,262	$36,625,512	.....	$476,750
2	23,016,709	21,736,709	.....	280,000
3	26,590,256	26,992,656	$402,406	.....
4	9,885,670	9,905,770	19,100	.....
5	16,022,700	17,263,635	1,240,925	.....
6	11,810,750	12,766,250	955,500	.....
7	13,087,067	13,018,799	.....	68,268
8	17,052,872	18,296,972	1,244,100	.....
9	14,981,200	15,542,100	560,900	.....
10	8,547,500	8,665,800	118,300	.....
11	8,775,700	8,917,220	141,520	.....
12	10,043,725	11,857,184	1,813,459	.....
13	5,397,000	5,500,000	103,000	.....
14	11,555,500	12,424,700	869,200	.....
15	26,540,100	28,385,300	1,845,200	.....
16	17,533,700	17,788,900	255,200	.....
17	17,078,000	17,459,300	381,300	.....
18	35,614,400	37,520,700	1,906,300	.....
19	12,621,894	16,830,472	4,208,578	.....
20	16,156,850	16,580,550	423,700	.....
21	27,376,550	29,710,650	2,334,100	.....
22	13,261,125	14,775,440	1,514,315	.....
Total	$379,051,580	$398,533,619	$20,307,107	$825,018

	Personal.	Personal.	Increase.
Resident	$158,339,730	$163,575,875	$5,236,145
Non-resident	14,631,462	15,121,162	489,700
Total	$172,971,192	$178,697,037	$5,725,845
Total real and personal	552,022,722	577,230,656	26,032,952
Less decrease			825,018
Net increase			$25,207,934

RECAPITULATION.

Total value of 1860	$577,230,656
Total valuation of 1859	552,022,722
Increase over 1859	$25,207,934
Total valuation in county	577,230,656
" " in lamp district	561,494,926
" " south of Fifty-seventh street	553,849,538

TAXABLE VALUE OF ALABAMA.

The official taxable value of Alabama has been for three years as follows:—

	1856.	1857.	1858.
Lands	$110,922,067	$122,295,722	$126,949,626
Money at interest	16,079,060	18,507,363	19,620,146
" in corporate companies	2,565,221	3,816,220	4,696,872
Sales merchandise	22,738,962	26,386,254	26,447,506
Total	$152,305,309	$171,005,559	$177,714,150

NEW YORK CITY BANKS, MARCH, 1859 AND 1860.

The following is a comparative table of the quarterly statements made by the city banks in March, 1859 and 1860 :—

Liabilities.	March 31, '60.	March 12, '59.	Increase.	Decrease.
Capital	$69,420,057	$68,324,657	$1,095,400	.....
Net profits	7,269,387	6,278,962	990,426	.....
Circulation	8,495,922	7,992,248	496,674	.....
Due banks	29,135,815	27,251,909	188,906	.....
Deposits	79,091,704	81,200,028	.....	2,108,324
Due others	1,171,855	433,727	738,128	.....
Total	$194,524,740	$191,488,531	$3,036,209	$2,108,324
Resources.				
Discounts	$125,940,851	$123,974,632	$1,975,219	.....
Stocks	12,448,043	12,020,324	427,719	.....
Bond and mortgage	530,966	523,871	7,095	.....
Real estate	6,254,729	5,976,179	278,550	.....
Due by banks	5,079,220	5,365,687	.....	286,467
Cash items	20,868,056	18,501,600	1,366,450	.....
Specie	23,172,776	25,068,154	.....	1,895,878
Overdrafts	221,099	58,078	163,021	.....
Total	$194,524,740	$191,488,531	$3,036,209	.....

These returns are useful to compare with the weekly statements. These latter, the average over the week, is given, while in the quarterly reports the actual amount for the day named is given.

CITY WEEKLY BANK RETURNS.

NEW YORK BANK RETURNS.—(CAPITAL, JAN., 1860, $69,333,632; 1859, $68,050,755.)

	Loans.	Specie.	Circulation.	Deposits.	Average clearings.	Actual deposits.
Jan. 7	124,597,668	17,863,734	8,539,063	97,493,709	22,664,854	74,808,855
14	123,582,414	18,740,866	8,090,548	99,247,743	23,363,980	75,883,763
21	123,845,931	19,238,494	7,880,865	99,644,128	22,813,547	76,830,581
28	123,088,626	20,063,739	7,760,761	98,520,793	21,640,967	76,879,826
Feb. 4	124,091,982	19,924,301	8,174,450	99,476,430	21,898,736	77,577,694
11	123,336,629	19,787,567	8,185,109	98,146,463	21,674,908	76,471,055
18	124,206,031	20,591,189	8,050,001	100,387,051	22,061,811	78,325,240
25	124,398,239	20,773,896	7,928,595	100,622,481	22,151,504	78,470,977
Mar. 3	125,012,700	23,086,812	8,165,026	103,663,462	22,787,290	80,876,172
10	127,30:,778	21,861,180	8,419,633	104,813,906	23,791,958	81,021,948
17	127,562,848	23,171,833	8,380,999	108,560,981	25,562,858	82,998,123
24	127,613,507	23,286,204	8,335,266	107,505,395	25,397,976	82,107,419
31	128,388,223	23,420,759	8,444,827	106,811,554	22,899,523	83,422,031
Apr. 7	130,606,731	22,599,132	8,929,228	109,193,464	25,656,629	83,536,835
14	129,919,015	23,626,982	8,775,297	109,153,863	24,256,270	84,897,593
21	128,448,868	23,233,314	8,790,459	108,145,233	25,758,735	82,386,498
28	127,085,667	23,279,809	8,749,048	103,206,723	21,391,290	81,815,433
May 5	127,479,520	23,815,746	9,391,861	108,505,388	26,546,063	81,959,325
12	126,184,532	22,780,387	9,153,811	108,038,848	27,802,174	80,236,674
19	124,938,389	23,735,193	9,035,522	106,229,724	25,339,444	80,890,280
26	125,110,700	23,431,773	8,826,473	104,433,136	24,309,496	80,123,640
June 2	124,792,271	24,535,457	8,774,063	104,268,785	22,888,107	81,380,678
9	125,431,963	23,785,581	8,999,948	103,386,091	22,776,108	80,609,983
16	125,399,997	24,110,553	8,828,786	104,031,268	22,492,614	81,538,654
23	125,886,565	23,350,921	8,779,115	102,787,055	22,116,242	80,620,813
30	127,208,201	22,464,250	8,745,182	102,496,762	21,309,053	81,187,709
July 7	127,244,241	22,751,694	9,343,727	103,450,426	22,119,106	81,331,320
14	127,123,166	23,641,357	8,075,528	106,899,678	23,456,447	82,943,231

BOSTON BANKS.—(CAPITAL, JAN., 1859. $35,125,433; 1860, $36,581,700.)

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 2 ..	59,807,566	4,674,271	6,479,488	18,449,305	7,545,222	6,848,374
16 ..	60,068,941	4,478,841	6,770,624	17,753,002	7,867,400	6,735,283
23 ..	59,917,170	4,182,114	6,486,139	17,378,070	7,784,169	6,516,532
30 ..	59,491,387	4,172,325	6,199,485	17,483,054	7,385,370	6,517,541
Feb. 6 ..	59,705,422	4,249,594	6,307,922	17,900,002	7,259,703	6,656,460
13 ..	59,993,784	4,462,698	6,364,320	17,271,596	7,426,539	6,593,702
20 ..	60,115,836	4,577,334	6,305,537	17,597,861	7,430 060	6,549,382
27 ..	59,927,917	4,714,034	6,411,573	18,020,239	7,700,530	7,480,954
March 5 ..	59,993,784	5,034,787	6,396,656	18,645,621	7,736,290	7,768,074
12 ..	59,885,196	5,328,610	6,430,643	18,393,293	7,715,663	7,390,935
19 ..	60,258,208	5,446,840	6,405,084	18,660,205	.....	.....
26 ..	60,180,209	5,627,961	6,328,273	18,742,817	8,351,016	7,804,222
Apr. 2 ..	60,050,953	6,045,703	6,340,268	19,262,894	8,473,775	8,080,218
9 ..	60,668,559	6,320,551	7,753,491	20,469,893	9,206,161	9,788,121
16 ..	61,189,629	6,289,719	7,267,165	20,291,620	9,160,868	8,814,312
23 ..	61,035,965	6,315,952	7,152,766	20,266,917	9,055,077	8,138,121
30 ..	61,259,552	6,317,949	6,992,903	20,195,951	9,273,558	7,948,086
May 7 ..	61,614,199	6,311,714	7,322,813	20,810,086	9,116,514	8,324,391
14 ..	61,744,290	6,263,535	7,076,071	20,753,862	9,210,152	8,209,699
21 ..	61,724,621	6,268,919	7,031,306	20,726,996	9,197,894	8,241,899
28 ..	61,258,986	6,201,113	6,660,595	20,320,518	9,057,822	8,272,557
June 4 ..	61,585,669	6,192,455	6,800,711	20,656,295	9,172,878	8,866,511
11 ..	62,346,519	6,300,700	7,090,282	20,228,677	9,629,483	7,857,439
18 ..	63,085,953	6,322,698	7,165,453	20,677,536	9,988 840	7,991,098
25 ..	63,557,155	6,262,930	7,188,326	20,750,673	10,307,194	8,188,802
July 2 ..	64,172,028	6,059,370	6,925,022	20,828,714	10,300,178	7,527,888

PHILADELPHIA BANKS.—(CAPITAL, JAN., 1860, $11,687,435.)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due banks
Jan. 2....	25,386,337	4,450,261	2,856,601	14,982.919	2,619,192
9....	25,248,051	4,453,252	2,675,623	14,161,437	2,596,212
16....	25,275,219	4,561,998	2,672,730	14,934,517	2,563,449
23....	25,445,737	4,514,579	2,644,191	15,064,970	2,601,271
30....	25,526,198	4,585,321	2,601,750	15,401.915	2,619,573
Feb. 6....	25,493,975	4,669,929	2,656,310	15,409,241	2,574,015
13....	25,493,975	4,669,929	2,656,310	15,409,241	2,574,015
20....	25,458,354	4,581,356	2,663,695	14,864.302	2,782,306
27....	25,553,918	4,706,108	2,653 192	14,590,092	3,115,010
Mar. 5....	25,742,447	4,816,052	2,697,108	15,192,971	3,183,312
12....	25,742,447	4,816,052	2,697,108	15,192,971	3,183,312
19....	25,832,077	4,873,419	2,783,345	15,205,432	3,209,553
26....	26,048,772	4,992,542	2,784,773	15,698,622	3,198,580
April 2....	26,405,229	5,060,274	2,858,812	15,553,269	3,652,757
9....	27,214,254	5,209,576	3,528,762	15.528.762	4,085.695
16....	27,444.580	5,415,711	3,252,186	16,012,140	4,164,678
23....	27,545,351	5,464,280	3,154,285	16,613,616	3,985,110
30....	27,571,002	5,453.470	3,037,846	16.529.891	3,902,514
May 7....	27,590,212	5,477,019	2,968,444	16,763,609	3,731,987
14....	27,463,831	5,587,360	2,944,245	16,489,872	4,209,845
21....	27,401,926	5,367,416	2,870,617	16,422,835	4,085,882
28 ...	27,283,932	4,886,579	2,818,719	15,884,903	3,974,369
June 4....	27,171,002	4,582,610	2,824,471	15,620,293	3,744,431
11....	27,046.016	4,183,667	2,810,552	15,698,909	3,128,287
18....	26,882,709	4,222,644	2,725,269	15,642 639	3,109,639
25....	26,780.533	4,329,638	2,654,503	15,643 433	3,060,615
July 2....	26,835,868	4,305,866	2,960,381	15,824,391	3,159,819

NEW ORLEANS BANKS.—(CAPITAL, JAN., 1860, $18,917,600.)

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
Jan. 7 ..	25,022,456	12,234,448	12,038,494	18,563,804	7,323,580	1,557.174
14 ..	24,928,909	12,336,735	12,417,847	18,678,233	7,410,360	1,887,704

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
21 ..	24,699,024	12,821,411	12,809,512	18,664,855	7,428,629	1,377,796
28 ..	24,916,431	12,818,159	12,882,184	19,677,121	8,144,681	1,603,763
Feb. 4 ..	25,145,274	12,750,642	13,215,494	19,565,305	8,003,380	1,613,036
11 ..	25,197,351	12,741,881	13,243,924	19,244,847	7,349,365	1,396,150
18 ..	25,005,952	12,894,521	13,458,989	19,903,519	7,886,609	1,470,787
25 ..	24,897,286	12,945,204	13,600,419	19,218,590	8,083,929	1,635,526
Mar. 3 ..	24,946,210	12,952,002	13,860,899	20,116,272	8,027,049	1,092,475
10 ..	24,088,800	13,039,092	13,726,554	19,711,423	8,582,012	1,601,149
17 ..	24,054,845	12,729,356	13,797,154	19,304,618	8,498,790	1,718,310
24 ..	23,632,766	12,610,790	13,835,755	19,102,068	8,342,599	1,738,246
31 ..	23,674,714	12,437,195	13,975,624	18,681,020	8,149,061	1,610,499
Apr. 7 ..	23,107,740	12,368,071	14,100,890	18,070,209	8,560,117	1,942,056
14 ..	22,422,203	12,290,539	13,638,089	17,849,018	8,179,441	1,608,463
21 ..	22,380,033	12,100,687	12 999,204	18,380,033	7,649,069	1,649,060
28 ..	21,437,974	11,910,361	12,783,749	17,699,538	7,686,634	1,877,017
May 5 ..	21,437,974	11,910,361	12,783,749	17,699,538	7,686,634	1,877,017
12 ..	20,545,529	11,672,364	12,258,444	17,442,974	7,213,833	1,763,871
19 ..	19,385,119	11,706,007	12,163,609	17,260,226	6,909,386	1,680,480
26 ..	18,588,492	11,593,719	11,900,864	17,938,774	6,599,676	1,596,210
June 2 ..	18,282,807	11,191,024	11,791,799	16,985,565	6,173,783	1,459,051
9 ..	17,423,118	11,072,236	11,572,259	16,989,587	5,958,996	1,442,041
16 ..	16,864,692	10,693,389	11,389,389	16,105,556	5,538,830	1,665,076
23 ..	16,821,969	10,223,276	11,138,434	15,319,947	5,067,682	1,739,481

PITTSBURG BANKS.—(CAPITAL, $4,160,200.)

	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 16.....	7,202,867	980,530	2,080,548	1,527,548	304,562
23.....	7,060,471	1,022,273	2,012,478	1,545,103	255,076
30.....	6,989,320	1,003,037	1,896,863	1,555,686	265,804
Feb. 6.....	6,984,209	997,589	1,907,323	1,609,692	280,426
13.....	6,939,052	951,638	1,883,093	1,602,311	191,222
20.....	6,957,621	988,306	1,868,598	1,648,703	175,051
27.....	7,022,230	991,377	1,821,283	1,760,957	224,434
Mar. 5.....	7,101,459	1,018,255	1,871,873	1,768,879	273,343
12.....	7,035,624	999,093	1,901,543	1,651,216	197,007
19.....	7,066,774	1,004,750	1,945,328	1,636,887	198,556
26.....	7,038,891	981,560	1,980,732	1,572,130	192,411
Apr. 2.....	7,166,377	1,005,415	2,085,583	1,601,167	191,101
9.....	7,206,737	990,962	2,072,373	1,693,230	171,100
16.....	7,159,568	1,018,445	2,071,878	1,651,362	187,255
23.....	7,278,279	1,156,278	2,024,138	1,897,498	240,143
30.....	7,234,761	1,141,373	1,995,053	1,913,537	175,671
May 5.....	7,234,761	1,141,373	1,995,053	1,913,537	175,671
14.....	7,263,197	1,088,851	2,011,258	1,890,810	215,765
19.....	7,196,493	1,133,719	2,022,988	1,906,773	213,944
27.....	7,190,192	1,122,057	1,952,683	1,918,321	206,316
June 4.....	7,282,963	1,089,751	1,907,248	1,919,903	277,978
11.....	7,214,889	1,126,308	1,919,688	1,892,800	240,728
18.....	7,247,541	1,102,446	2,029,558	1,743,915	271,062
25.....	7,291,888	1,150,248	2,048,358	1,779,752	315,858

ST. LOUIS BANKS.

	Exchange.	Circulation.	Specie.
Jan. 7.....	4,378,543	538,555	662,755
14.....	4,467,513	520,305	642,497
21.....	4,352,699	502,175	580,754
28.....	4,290,563	495,380	568,335
Feb. 4.....	4,149,236	457,095	590,502
11.....	4,048,593	424,605	625,043
18.....	3,906,896	391,605	639,450
25.....	3,951,433	399,085	680,877
March 3.....	3,891,263	395,905	689,301
10.....	3,998,827	377,935	651,302
17.....	3,963,924	377,355	641,252

		Exchange.	Circulation.	Specie.
	24	3,880,915	356,245	664,179
	31	3,790,291	340,095	685,984
April	7	3,862,454	344,630	657,321
	14	3,868,345	325,950	676,858
	21	3,852,614	314,360	601,014
	28	3,694,877	306,750	678,234
May	5	3,609,648	301,300	746,176
	12	3,683,644	294,115	808,918
	19	3,695,707	285,140	826,793
	26	3,767,986	278,540	671,669
June	2	3,879,617	255,210	627,942
	9	3,823,735	253,780	656,358
	16	3,888,763	244,850	682,917
	23	3,967,082	235,935	705,764
	30	3,825,423	206,749	804 983
July	7	3,736,695	199,3?5	791,729

PROVIDENCE BANKS.—(CAPITAL, $14,903,000.)

	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 2	19,144,354	315,917	2,011,336	2,635,486	938,508
Feb. 6	19,144,846	326,297	1,958,540	2,566,168	921,779
Mar. 3	19,009,255	342,965	1,917,593	2,598,169	970,971
Apr. 1	18,686,210	343,992	1,952,022	2,640,170	1,040,260
May 7	18,893,653	448,413	2,045,590	2,773,248	1,356,071
June 4	18,891,907	422,726	1,938,254	2,844,012	.....
July 2	19,243,061	430,128	2,158,904	2,790,587	1,115,951

BANK OF ENGLAND CIRCULATION.

Table showing the alterations in bank discounts during 1859 and 1860, with the amount of bank notes issued, and of the bullion held, at the respective periods :—

Date.	Minimum rate per cent.	Bullion.	Bank notes issued. Held by the public.	In reserve by Bank of England.	Total.
1859, Apr. 28	3½	£17,640,342	£21,938,625	£9,496,645	£31,435,270
" May 5	4½	17,205,480	22,255,685	8,790,350	31,046,035
" June 2	3½	17,764,596	21,092,350	10,478,390	31,570,745
" " 9	3	17,957,887	21,134,345	10,607,545	31,741,890
" July 14	2½	17,941,791	21,712,530	10,100,525	31,813,055
1860, Jan. 19	3	15,884,498	22,053,140	7,589,865	29,643,005
" " 31	4	14,942,502	21,906,340	6,846,370	28,752,710
" Mar. 29	4½	15,271,701	20,980,355	8,082,685	29,068,040
" Apr. 12	5	14,637,102	23,467,255	4,922,085	28,389,340

VALUATION OF GEORGIA.

A TABLE SHOWING THE INCREASE AND DECREASE IN THE DIFFERENT ITEMS OF TAXATION SINCE 1858.

	Value in 1858.	Value in 1859.	Increase.	Decrease.
Land	$138,859,970	$149,547,880	$10,687,910	.....
Slaves	227,468,927	271,620,405	44,154,478	.....
City property	30,110,244	32,129,314	2,019,070	.....
Money and solvent debts	89,762,747	93,124,701	7,361,904	.....
Merchandise	10,462,511	13,531,687	3,069,176	.....
Shipping and tonnage	763,235	631,731	.....	131,504
Foreign bank capital	773,413	.....	.....	773,413
Stocks, manufactories, &c.	3,868,736	4,428,132	559,396	.....
Household and kitchen furniture	2,054,505	2,260,937	206,432	.....
Other property not mentioned	34,928,856	39,315,089	4,386,233	.....
Number of polls	97,048	98,945	1,897	.....
Number of professions	2,978	2,838	.....	140
Number of free persons of color	1,093	1,213	120	.....
Number of acres of land	33,780,805	33,759,223	.....	21,582
Number of slaves	432,124	443,364	11,240	.....

VALUATION OF THE STATE OF TEXAS.

The Controller of the State of Texas gives the following taxable valuation of that State :—

TAX FOR 1858.

	Number.	Value.	Rate per $100.	Tax.
Acres of land	44,809,220	$73,915,178	12½	$92,393 97
Town lots	43,385	12,748,818	12½	15,935 89
Negroes	135,320	72,855,928	12½	91,069 91
Horses	239,887	11,711,601	12½	14,639 50
Cattle	2,218,055	13,317,821	12½	16,647 27
Money lenders	2,682	2,816,581	20	5,633 16
Miscellaneous		6,271,396	12½	7,839 25
Total value		$193,636,818		$244,158 45
Poll tax				25,597 50
Total ad valorem and poll tax				$269,755 95

Average value of land per acre.	$1 65	Average value of horses	$48 82
" town lots	293 84	" cattle	6 00
" negroes	538 40		

TAX FOR 1859.

	Number	Value.	Rate per $.00.	Tax.
Acres of land	44,283,658	$83,892,720	12½	$104,240 90
Town lots	42,363	14,137,207	12½	17,671 51
Negroes	136,853	85,630,748	12½	107,038 43
Horses	284,714	14,329,103	12½	17,911 38
Cattle	2,671,422	16,057,242	12½	20,071 55
Money lenders	3,053	3,330,038	20	6,660 07
Miscellaneous		7,476,208	12½	9,345 26
Total value		$224,353,266		$282,939 10
Poll tax				26,787 50
Total ad valorem and poll tax				$309,726 60

Average value of land per acre.	$1 88	Average value of horses	$50 32
" town lots	333 72	" cattle	6 01
" negroes	625 64		

INCREASE OF TAXABLE PROPERTY.

The increase in the total value of property within the last two years has been over $45,500,000, of which $14,500,000 has been in the value of land ; $2,000,000 in town lots ; $18,100,000 in negroes ; $3,800,000 in horses ; $4,400,000 in cattle ; $1,100,000 in money at interest ; and $1,600,000 in miscellaneous property, or an increase of nearly 25.5 per cent, as appears from the following table showing the aggregate value for each of the last eight years, and the increase in amount and per cent of one year over the other :—

Years.	Taxable property.	Increase. Amount.	Per cent.
1852	$80,751,094	.....	..
1853	99,155,114	$18,401,020	23
1854	126,981,617	27,826,503	28
1855	149,521,451	22,539,834	17½
1856	161,304,025	11,782,574	8
1857	183,594,205	22,290,180	13¾
1858	193,636,818	14,857,513	8¼
1859	224,353,266	30,716,448	15¾

In order to ascertain the actual increase in the total value of property for the past two years, it will be necessary to deduct the amount of " merchandise on

hand" rendered for taxation in the year 1857, and which has been exempt since that time. The amount of "merchandise on hand" rendered in 1857 was $4,814,900; hence, the actual increase of 1858 over 1857 is $14,857,513 instead of $10,042,613, as appears from a comparison of the aggregate value of taxable property for those years as exhibited in the above table.

The actual increase of 1859 over 1858 is 18.5 per cent, which embraces the supplementary assessments of 1858, and the outstanding rolls for this year from the counties of El Paso, Hamilton, Montague, Nueces, Webb, and Zapata, which are not included in the above recapitulation.

BANKS OF THE STATE OF VIRGINIA.

The last Legislature of Virginia authorized seventeen new banks and forty branches. Of the new banks, seven are under general law; five are independent; and the remainder are State banks. The following is a condensed statement of the banks of Virginia in January, 1859 and 1860, from the official reports:—

Banks.	Capital.	Circulation.		Loans.		St. stocks.
	1859.	1859.	1860.	1859.	1860.	1859.
Winchester	$113,000	$77,215	$74,365	$130,054	$133,199	$117,409
Rockingham	211,200	178,995	156,675	149,954	128,818	261,580
Scottsville	77,000	97,509	68,206	76,583	66,821	100,128
Old Dominion	404,000	296,385	260,490	411,151	411,853	350,000
Charleston	300,000	63,121	115,155	142,251	228,435	49,488
Berkeley	100,000	64,585	59,030	70,151	75,963	100,000
Philippi	75,400	75,400	71,855	70,711	66,571	76,300
Howardsville	181,000	167,886	115,857	157,006	110,443	203,308
Commerce	175,500	85,440	73,820	134,298	101,861	125,800
Rockbridge	106,800	114,395	110,065	99,533	125,953	125,000
Farmers', Fincastle	150,000	163,255	86,465	118,137	79,443	171,000
Monticello	284,900	176,249	109,066	125,880	200,624	284,900
Merchants'	500,000	287,291	204,800	358,831	378,358	455,402
Central	208,100	138,249	149,805	162,361	168,594	173,905
Southwestern	109,900	104,275	91,325	103,998	99,758	109,900
Fairmount	57,950	59,435	46,565	56,570	40,381	60,000
Danville	125,965	160,620	256,210	239,985	357,860	.....
Exchange	3,046,000	1,698,817	1,425,757	5,623,362	5,370,970	.....
Farmers'	3,150,900	1,762,021	1,769,872	6,066,900	6,027,315	.....
Virginia	2,651,250	1,284,948	1,232,204	4,714,214	4,749,351	.....
Northwestern	955,800	702,049	679,523	1,385,084	1,483,783	.....
Merchants' & Mech.	784,200	1,479,202	1,334,258	1,573,668	1,499,786	.....
Bank of the Valley	1,215,000	1,268,701	1,228,039	2,244,759	2,100,189	.....
Total	14,983,865	10,501,043	9,719,407	24,815,441	24,006,279	2,764,120

THE REVENUE OF JAPAN.

During an interview with the Japanese, the subject of the revenue of Japan was introduced. In answer to a question from Commander DAHLGREN, the ambassadors stated, after some consultation, that it amounted to about $500,000,000, principally derived from tax upon agricultural produce, rice being the staple crop. Of this 30 per cent is the revenue of the general government, and 70 per cent that of the rulers of the several States, each of which has its distinct though tributary and subordinate government. It seems almost impossible that this estimate can have been correctly made, according to our currency. The total is probably exaggerated. It would require a tax of more than $10 a head, or about $50 a family.

THE STATE BANK OF IOWA, MAY 7, 1860.

The State Bank of Iowa was authorized in 1838, and went into operation in 1839. Its condition is now as follows:—

LIABILITIES.

Name of branches.	Capital.	Circulation.	Due other b'ks and bank'rs.	Depositors.	Other items.
Muscatine Branch	$34,000	$47,934	$3,011	$20,791	$1,006
Dubuque Branch	30,000	36,354	475	33,145	3,986
Keokuk Branch	58,500	73,513	1,650	42,593	7,084
Mount Pleasant Branch	35,350	38,772	818	36,005	4,967
Merchants' Branch, Davenport	35,420	9,043	806	138,091	6,119
Oskaloosa Branch	50,000	85,324	427	33,422	5,514
Branch at Iowa City	26,300	40,500	1,626	57,491	2,707
Branch at Des Moines	27,000	51,720	411	27,189	4,248
Lyons City Branch	25,000	13,994	67	31,960	2,288
Branch at Burlington	76,000	79,280	3,989	191,570	16,489
Washington Branch	33,000	62,334	866	31,383	2,325
Fort Madison Branch	46,500	88,778	1,115	9,224	1,880
McGregor Branch	25,000	17,305	253	11,086	668
Total	$501,070	$644,851	$15,519	$713,904	$59,286

ASSETS.

	Safety Fund.	Specie.	Notes of oth. banks.	Due from banks.	Loans.	Other items.
Muscatine Branch	$8,763	$12,051	$4,529	$14,152	$31,971	$35,275
Dubuque Branch	5,550	21,701	26,851	28,918	66,713	4,227
Keokuk Branch	14,460	38,515	35,326	24,657	68,365	2,017
Mount Pleasant Branch	7,718	22,049	16,171	14,409	51,961	3,602
Merchants' Branch, Davenport	6,000	35,237	49,180	30,338	64,280	4,444
Oskaloosa Branch	12,500	21,908	10,046	19,803	105,581	4,759
Branch at Iowa City	6,831	21,746	19,491	20,133	56,837	3,584
Branch at Des Moines	7,770	21,257	12,861	5,286	60,806	3,087
Lyons City Branch	3,636	8,829	13,952	15,183	27,205	4,453
Branch at Burlington	18,470	59,220	74,495	58,913	149,093	6,137
Washington Branch	8,653	20,411	21,241	14,595	60,494	4,508
Fort Madison Branch	11,801	21,866	9,598	7,289	85,771	8,171
McGregor Branch	3,052	17,377	10,868	4,982	15,034	2,948
Total	115,262	325,172	304,609	258,754	843,615	87,218

DEBT OF NORTH CAROLINA.

The debt of the State of North Carolina is reported officially as follows:—

Bonds to pay debt of the State, under act of January 28, 1851	$170,000
Bonds to Fayetteville and Western Plankroad	152,000
Bonds to Tar River and Gaston and Weldon Railroad	120,000
Bonds to North Carolina Railroad	3,000,000
Bonds to Fayetteville and Central Railroad	50,000
Bonds to Fayetteville and Warsaw Plankroad	10,000
Bonds for account Tar River, under act 14th February, 1858	15,000
Bonds issued on account Insane Asylum	125,000
Bonds to Atlantic and North Carolina Railroad	1,466,500
Bonds to Western North Carolina Railroad	180,000
Bonds to Cape Fear and Deep River	300,000
Bonds to Albermarle and Chesapeake Canal	350,000
Bonds to Fayetteville and Coal Field Railroad	300,000
Bonds to Wilmington, Charlotte, and Rutherford Railroad	400,000
Bonds issued under act for certain purposes, session 1858-59	1,213,800
Due Literary Fund on note	81,005
Total	$8,833,305

The interest on the above debt is payable on the first days of January and July, on this amount, $5,721,705; and first days of April and October on this amount, $3,111,600. The interest on the above debt is $529,998 30. The State has indorsed bonds of Wilmington and Weldon Railroad Company for $200,000. The prospective debt of the State on account of Wilmington, Charlotte, and Rutherford Railroad and Western Extension of North Carolina Railroad, may be stated at $500,000, making the actual and prospective debt about $13,833,305.

Of course, as this prospective increase of our indebtedness depends upon contingencies which may not arise, it cannot be accurately told. Should the floating debt of the State, at this time of small amount, be funded, and the State be called upon to pay the principal of her indorsements for the Cape Fear and Deep River Navigation Company, as it is feared she will, the foregoing amount of the funded debt will be slightly increased.

BANKS OF THE STATE OF NEW YORK.

The banks of New York State, for a number years, shows as follows :—

	Capital.	Circulation.	Deposits.
1849, June	$44,929,000	$21,912,000	$35,604,000
1850 "	47,779,000	24,214,000	46,691,000
1851 "	55,580,000	27,511,000	54,467,000
1852 "	59,705,000	27,940,000	65,084,000
1853 "	73,183,000	30,065,000	79,996,000
1854 "	81,589,000	31,266,000	82,637,000
1855 "	85,032,000	28,062,000	83,537,000
1856 "	92,334,000	30,705,000	96,267,000
1857 "	103,954,000	32,395,000	104,350,000
1858 "	109,340,000	24,079,000	94,046,000
1859, Sept	110,997,000	27,970,000	103,106,000
1860, March	111,161,000	29,441,000	109,889,000

	Loans.	Specie.	Stocks & bonds.
1849, June	$85,335,000	$10,571,000	$2,663,000
1850 "	98,480,000	11,653,000	2,069,000
1851 "	115,677,000	8,978,000	3,969,000
1852 "	127,245,000	13,304,000	4,548,000
1853 "	151,206,000	13,384,000	5,822,000
1854 "	153,875,000	10,792,000	7,315,000
1855 "	165,106,000	15,921,000	7,888,000
1856 "	174,141,000	18,510,000	8,381,000
1857 "	190,808,000	14,370,000	9,299,000
1858 "	178,853,000	33,597,000	8,615,000
1859, Sept	182,420,000	22,026,000	7,995,000
1860, March	195,288,000	24,620,000	7,737,000

THE BANKS OF MISSOURI.

The statements of the Missouri Banks for the 1st of July show the following aggregates, as compared with the January statement :—

Capital	$10,357,206
Circulation	6,242,780
Cash means	5,222,479
Coin	4,386,993
Notes discounted	5,281,435
Bills of exchange	2,101,644
Decrease of circulation	1,526,570
Increase in capital	1,091,681
Increase in coin	226,088
Increase in notes discounted	290,196
Increase in suspended debt	41,000
Decrease in bills of exchange	657,272

BANKS OF NEW JERSEY.

The banks of New Jersey show a slight increase of capital compared with January, 1859. The surplus profits on the average are about eighteen per cent. The following is a summary for January, 1859 and 1860, and April, 1860 :—

LIABILITIES.

	January, 1859.	January, 1860.	April, 1860.
Capital	$7,359,132	$7,884,412	$7,898,589
Circulation	4,054,770	4,811,832	6,427,862
Deposits	4,239,225	5,669,442	5,977,076
Unpaid dividends	88,032	72,022	104,984
Due banks	770,939	1,141,664	836,818
Other debts	48,850	29,068	8,727
Surplus	1,332,165	1,397,772	1,496,776
Total	$17,893,120	$21,006,212	$22,745,832

RESOURCES.

Discounts	$12,449,460	$14,909,174	$16,637,255
Specie	952,281	940,700	916,776
Due by banks	2,223,936	2,395,028	2,874,520
Bank notes	578,006	662,196	859,074
Real estate	421,794	446,202	449,684
Stocks	785,523	962,911	956,641
Other assets	482,170	590,894	501,387
Total	$17,802,144	$20,907,005	$23,195,737

FINANCES OF AUSTRIA.

The income of the Austrian empire steadily increased from 1831 to 1846 from 121,000,000 florins to 153,000,000 ; and since 1836 there always remained some surplus for paying off old scores. But in 1847 there was a deficit of 42,000,000. In 1848 the deficit rose to 58,000,000, and in 1849 to 143,000,000. The new organization of the empire was proclaimed at that time, with the following results:—The Civil List rose from 6,338,000 in 1850 to 9,100,000 in 1858 ; the expenditures of the Home Ministry, from 16,000,000 to 26,000,000 ; of the Finance Ministry, from 16,000,000 to 25,000,000 ; the Department of Justice, from 10,000,000 to 18,000,000 ; Public Instruction and Worship, from 3,500,000 to 5,500,000 ; Public Works, from 12,000,000 to 18,000,000 ; the Police, from 5,000,000 to 10,000,000 a year. The army expenditures are rather instructive. Before 1846, the War office absorbed about 52,000,000. This sum rose and fell in the subsequent years, as follows:—

In 1849	165,000,000	Hungarian and Sardinian War.
1850	126,160,000	State of siege in Hungary.
1851	125,840,000	State of siege in Hungary.
1852	114,000,000	
1853	117,780,000	
1854	208,695,000	Turkish War.
1855	216,050,000	Turkish War.
1856	123,830,000	
1857	118,575,000	
1858	101,817,000	

The expenditure of 1859 does not appear as yet in the official returns, but it cannot be put down at less than 250,000,000 to 300,000,000. Thus the army costs, under the new system, within 11 years, 1,800,000,000, without leading to any greater result than to the loss of Lombardy, in a campaign of only ten weeks'

duration. During the same period, the interest on the public debt rose from 60,000,000 in 1851, to 96,000,000 in 1858. And the sum total of the deficits from 1848 to 1859 amounted to the enormous sum of 1,181,303,496 florins; or, in round numbers, to $590,000,000.

Accordingly the direct taxation was raised from 47,000,000 in 1847, to 94,750,000 in 1858; the indirect taxation from 95,000,000 to 152,000,000; the public debt from 1,000,000,000 to 2,500,000,000 florins. To complete this picture, we add that paper money to the extent of 463¾ millions, is the only circulating medium, which is now at a discount of 32 per cent.

BANK OF THE STATE OF INDIANA.

We have received the statement of the Bank of the State of Indiana for the 30th of June, 1860, as submitted to the managers at their meeting at Indianapolis. We compare the leading items with the exhibit made at the corresponding date last year:—

	1860.	1859.
MEANS.		
Bills discounted	$1,058,319 04	$533,556 78
Bills of exchange	5,223,096 20	4,612,938 05
Banking houses	127,442 21	125,053 22
Other real estate	99,100 89	79,221 02
Due from Eastern banks	728,213 03	501,558 88
Due from other banks	371,788 28	293,389 56
Remittances, etc.	142,628 72	144,010 51
Branch balances	21,431 76	5,969 43
Notes of other banks	222,904 00	224,363 00
Gold and silver	1,667,262 81	1,544,612 55
LIABILITIES.		
Capital	$3,127,850 00	$2,693,691 31
Surplus fund	643,517 38	452,496 75
Profits and loss	247,111 42	111,936 54
Unclaimed dividends	24,028 63	596 00
Other items	53,019 64	52,707 72
Due other banks	38,103 18	65,337 35
Individual deposits	942,503 69	1,047,116 15
Circulation	4,689,968 00	4,599,097 00
Less notes in branches	103,915 00	120,914 00

UNITED STATES COINS.

It appears from official statements recently published by the authorities of the United States Mint, that new regulations are in operation concerning the circulation of master-coins and trial pieces at the mint. The following extract is taken from the official report:—

The master-coins, which are struck from polished dies, and with extra labor and care, have hitherto been given out at their intrinsic value. In view of the great and increasing demand for these coins, it is deemed not just to the public service that so much labor should be given away. In order to cover this expense, and to put it in the power of any individual to obtain these coins on equitable terms, the set of gold coins, whose intrinsic value is $41 50, will be given for $43, and the set of silver coins, with the cent, whose intrinsic value is $2 02, will be given for $3; but no person or institution shall obtain more than one set of said coins. The excess beyond the intrinsic value of these coins thus delivered, will be paid into the fund for defraying the expenses of the mint, and be accounted for in like manner as other funds placed to that account. The object of the circular respecting the formation of a "Washington collection" at the mint, having been in a satisfactory manner attained, and most of the pieces of the American

series, heretofore wanting in the mint cabinet proper, having been supplied, it is deemed inexpedient to make any further exchange of pattern or trial pieces.

The directors of the mint would be glad to gratify the taste of coin collectors by supplying them with these pieces, if it could be done on equal terms to all applicants; but as this would involve the necessity of making a large issue of such pieces, and be productive of a serious inconvenience to the officers of the mint. no better alternative seems to present itself than to decline to give out any of such piece. Hereafter, therefore, the only specimen pieces that will be given out of the mint, will be the master-coins of the current year, commencing with the year 1860. These will be prepared for delivery as soon after the commencement of the year as the business of the mint will permit.

A goodly number of these master-coins have already been received in New York by persons curious in these matters, and they are really worthy of close inspection. The workmanship and brilliant polish excel the coins of France and England, and they are worthy a place in the cabinet of every gentleman.

THE JAPANESE CURRENCY.

The following is the official certificate of the results of the analysis taken at the mint in the presence of the chief ambassadors. It was furnished to the envoys by Superintendent SNOWDEN :—

MINT OF THE UNITED STATES, PHILADELPHIA, June 14, 1860.

For the satisfaction of their excellencies of the Japanese embassy, the undersigned, Director of the Mint of the United States, certifies to the results obtained by assay of gold coins of Japan and the United States, made in their presence by the proper officers of the mint.

One cobang weighed 138 21-32 grains, and the gold extracted from it weighed 79 10-32 grains.

One other cobang weighed 138 10-32 grains, and the gold extracted from it weighed 79 5-32 grains.

One other cobang weighed 139 9-32, and the gold extracted from it weighed 79 22-32 grains.

So on the average of these three, the cobang contains 79⅝ grains of gold, which makes the proportion of fineness 572 thousandths. This result agrees so well with our report of assays made in our usual way, (by taking only a half gramme, or about 7¾ grains,) that we trust it will give additional confidence to the embassy in our regular method of assay.

A gold dollar of the United States weighed 25 26-32 grains, and the gold extracted from it weighed 23 7-32 grains, which agrees as nearly as may be to 900 thousandths, our legal standard.

Therefore, for comparison, the cobang contains 79⅝ grains of gold, and the dollar contains 23 7-32 grains of gold. But it will be more strictly accurate to say that the proportion of gold in a cobang is 572 thousandths, and in the dollar 900 thousandths. It is necessary to add that the average weight of the gold dollar is 25 8-10 grains by law, which is a more exact basis of calculation than the single piece, which weighed 25 812-10,000, and was therefore a little too heavy.

The silver being extracted, with the necessary allowance for absorption, showed almost 59 grains of silver in each cobang, and the copper was only 12-32 of one grain in each cobang.

To recapitulate, the average composition of the cobang is as follows, in grains :—

Gold	79 12-32
Silver	59
Copper	0 12-32
Total	138 24-32

JAMES ROSS SNOWDEN, Director of the Mint.

STATISTICS OF TRADE AND COMMERCE.

VIRGINIA FLOUR TRADE.

The crop year having closed the Richmond *Whig* has published a table of the Virginia flour trade. This has peculiar interest this year when the prospect is of a reviving foreign demand. The following is a comparative statement of the receipts of wheat in bushels, at Richmond, for four years past:—

Year ending	By canal & railroad.	By dock & river.	Total.
June 30, 1857	1,896,750	800,000	1,696,750
" 30, 1858	1,829,582	446,346	2,275,928
" 30, 1859	1,504,336	472,834	1,977,170
" 30, 1860	1,851,782	496,530	2,348,312

Increase in 1859–60, as compared with the previous season, 371,142 bushels. The following table exhibits the details of this increase, by canal and railroads:—

	By canal.	Virginia Central Railroad.	Richmond and Danville Railroad.	Richmond and Fred'ksburg.	Richmond and Petersburg.
1856	623,733	278,209	395 444	46,818	19,850
1857	603,708	356.807	339,280	73,188	23,772
1858	856,134	458,814	387,840	111,774	15,020
1859	743,427	363,574	299,803	90,852	7,179
1860	812,844	461,968	462,428	103,550	10,992
Increase	69,417	98,394	162,625	13,198	3,713

The receipts of wheat, each quarter, during the past three years, and the progressive aggregates during the year just ended, were as follows:—

Quarter ending	1857–58.	1858–59.	1859–60.	1859–60.
September 30	872,605	1,084,904	1,123,204	3 mos 1,123,204
December 31	681,723	656,074	887,767	6 " 2,010,971
March 31	493,406	187,342	265,259	9 " 2,276,230
June 30	228,194	48,850	72,082	12 " 2,348,312

This table shows that in 1857–58, with a large yield, only about two-fifths of the crop were delivered during the first quarter, while in 1858–59, more than one-half was delivered in the same time, and last year, within 52,000 bushels of one-half.

A large portion of the wheat received by the canal is forwarded from Lynchburg. The following table will indicate the quantity contributed to this market for three years, from the southwest, by canal; from central Virginia, by canals and railroads; and from the lower counties, by the river:—

	1857–58.	1858–59.	1859–60.
Total canal receipts	856,134	743,247	812,844
From Lynchburg	327,655	393,002	308,067
From east of Lynchburg	528,479	350,245	454,777
Receipts by railroads	973,448	760,909	1,038,938
From central Virginia	1,501,927	1,111,154	1,493,715
Receipts by river	446,346	472,034	496,530
	1,948,273	1,583,988	1,990,245

These figures may be regarded as indicating the relative proportion of the yield of the three seasons, in eastern Virginia.

The coastwise exports of wheat from this city, during the three past seasons, were as follows:—

	1857–58.	1858–59.	1859–60.
From the dock	101,469	85,171	126,779
From Rocketts	no record	4,928	522
Total bushels	.....	90,099	127,361

COMPARATIVE STATEMENT OF THE INSPECTIONS OF FLOUR IN RICHMOND DURING THE FOUR YEARS ENDING JUNE 30, EACH YEAR.

	1857.	1858.	1859.	1860.
Family	5,163	4,761	5,698	8,291
Extra	17,265	12,100	12,081	19,738
Superfine	407,886	524,279	456,757	503,264
Fine	12,357	15,117	12,488	14,562
Middlings	48,613	50,356	51,729	63,456
Condemned	6,460	6,528	3,444	2,459
Total barrels	497,244	613,141	542,177	611,770

Increase, as compared with 1859, 69.593 barrels.

The Legislature, at the last session, amended the inspection laws, so as to exclude from compulsory inspection flour shipped to foreign ports in Virginia vessels. Important results are expected to flow from this measure, but, as yet, none of the millers, we believe, have availed themselves of the provisions of the law.

COMPARATIVE STATEMENT OF THE INSPECTIONS OF FLOUR, IN THE PRINCIPAL CITIES AND TOWNS OF VIRGINIA, DURING THE FOUR YEARS ENDING JUNE 30, EACH YEAR.

	1857.	1858.	1859.	1860.
Richmond	497,244	613,141	542,147	611,770
Alexandria	77,140	86,528	61,331	77,013
Petersburg	100,747	74,395	60,831	99,285
Lynchburg	53,820	57,277	50,385	71,785
Fredericksburg	28,552	41,882	24,637	36,317
Norfolk	20,947	23,439	32,688	27,567
Total barrels	779,450	896,662	772,019	913,037

Increase, as compared with 1859, 141,018 barrels.

The exports of flour from Richmond to foreign ports, direct, during the past four years, ending 30th June, were as follows:—

Destination.	1857.	1858.	1859.	1860.
To Australia	20,714	31,028	.....	14,148
Bremen	331	29	68	.....
British provinces	11,218	15,999	15,216	21,080
Liverpool	.....	2,000	.....	700
Marseilles	.....	4,694	.....	.....
Rotterdam	500	.....	20	.....
South America	156,295	236,581	231,067	218,859
West Indies	250	800	.....	.....
Total barrels	189,308	291,131	246,371	254,787

The value of the foreign exports, last season, was $1,894,204; in 1858–59, $1,824,950.

A portion of the above was shipped from the Manchester mills, but most of the flour exported from Richmond is put aboard the vessels in the dock. The aggregate shipments from the dock, foreign and coastwise, last year, was 471,011 barrels; in 1858–59, 425,975 barrels; and in 1857–58, 493,074 barrels. The shipments of flour, by steamers, were as follows:—

	To Baltimore.	To Philadelphia.	To New York.	Total.
1859-60.....	16,584	2,609	9,809	28,952
1858-59.....	18,170	22,167	10,894	51,231

We close our review with the following abstract of the aggregate shipments of the past two seasons, exclusive of the shipments from the Manchester mills, of which we have no record :—

	From the dock.	By steamers.	Total.
1859-60.....	471,011	28,952	499,963
1858-59.....	425,975	51,231	477,206

CALIFORNIA TO NEW YORK, VIA CHINA.

We find in the *Alta Californian* the following account of the route via China to New York, given on the experience of the writer. That part of the world is yearly becoming more of interest to the Atlantic States, as to the whole country, and the matters described are of a useful character :—

We left San Francisco in March, 1857, in a good clipper ship bound for Hongkong, and passing through the Sandwich Island group, arrived at the port of our destination in 51 days. From Hongkong we went to Macao by steamboat, and from the latter place to Singapore by sailing vessel. At Singapore we took passage for Suez, in one of the Peninsula and Oriental mail steamers, touching at Pulo Pinang, Point de Galle, (Ceylon,) and at Aden, in Arabia Petrœa. At Ceylon there was a change of steamers, which allowed several days sojourn ashore. The passage across the Isthmus of Suez was effected in omnibuses, and occupied eighteen hours from the town of Suez to Grand Cairo. From the latter we went by railroad to Alexandria, where we found steamers belonging to the P. and O. Steam Navigation Company, waiting to carry us to Marseilles or Southampton. The passage to Marseilles by these steamers occupies six-and-a-half days. They touch at Malta, and frequently steam within full view of the beautiful shores of Sardinia. Marseilles is 22 hours from Paris by rail.

We made arrangements before taking passage at Singapore that we should be allowed to "rest over" a fortnight at such points as we might desire, as for example, Egypt or Malta. The privilege was availed of only in Egypt. The prices of first-class passage from San Francisco to Paris being as follows :—

From San Francisco to Hongkong, sailing vessel.....	$200
" Hongkong to Macao, steamboat.....	6
" Macao to Singapore, sailing vessel.....	70
" Singapore to Marseilles, (through passage,) mail steamer.....	504
" Marseilles to Paris, railroad.....	20
Total cost of actual transportation.....	$800

Hotel bills ashore average $3 per diem.

Were we to undertake the trip again, we would pursue something like the following plan, and advise others accordingly :—

Leave San Francisco in August or September for Shanghae. This will allow you to benefit by the N. E. monsoon, in the voyages from Shanghae to the Red Sea. Also a visit of optional length at Shanghae, which is a much more interesting place to strangers than the more southern ports. From Shanghae to Hongkong, and from Hongkong to Singapore, during the prevalence of the N. E. monsoon, by availing oneself of passage by sailing vessels, a considerable saving

of expense is made over the same travel in the steamers, and but little time lost, as a good clipper ought to make the passage in nearly the same time, and sometimes even quicker, than the steamers. As some may be desirous of proceeding the whole distance by steam, I give the following as the list of steamer charges for first-class passage, (including wines, etc.,) from the different points, for the year 1857. These figures are liable to slight change from the fluctuations of exchange :—

From Shanghae to Marseilles (through ticket).....	$596
" Shanghae to Hongkong,)	96
" Hongkong to Marseilles, } portions of the route.....	600
" Singapore to Marseilles,)	504

If the tickets are taken to Alexandria, Egypt, instead of to Marseilles, there is a reduction of $50 in consequence. This will allow the passenger to leave the boats of the P. and O. Company, and take passage in the Austrian-Lloyd's line for Trieste, or a steamer for Constantinople, Greece, or Naples, thus admitting visits to any part of Southern Europe, and a passage by rail through Florence, Switzerland, Germany, and along the Rhine to points within easy access of London or Paris. Should the passenger have much baggage, and wish to sail for Southampton direct from Alexandria, the cost of passage is augmented about $50 over that to Marseilles.

All the mail steamers plying between the different ports of the British Oriental Possessions belong to the same company. A pleasant detour can be made by taking a steamer from Singapore to Calcutta, and from there another to Ceylon, touching at Madras. At Ceylon change steamers, and proceed to Bombay, from whence a steamer leaves for Suez every fortnight. This will give a most thorough tour, but will involve an increased expenditure for passage money alone of about $300.

Hotel bills, as I have already stated, are at an average of $3 per day. Washing and incidentals are light, unless you purchase largely of curiosities and knicknacks. Suppose 15 days are spent at each of the following places :— Shanghae, Hongkong, Calcutta, Bombay, Egypt, the hotel bills can be safely calculated at $270, and incidentals at $150 more. These resting places can be increased or done away with at will, and the expenses, therefore, be either augmented or diminished accordingly. First-class passage on the steamers from Havre, Southampton, or Liverpool, ranges from $100 to $160.

No one should leave Singapore without visiting one or more of the nutmeg plantations in the vicinity.

Point de Galle, Ceylon, will repay a two or three days' visit. Although many fine precious stones can be purchased here, the stranger should be on his guard, and not purchase of the jewelry peddlers who besiege him at every step.

Having arrived at Suez, the traveler will find stages in readiness to convey him to Cairo, which he will reach after 18 hours' ride. Should the Mediterranean steamer not be in waiting at Alexandria, a few hours may be spent upon the day of arrival in visiting the principal objects of interest in Cairo.

After arriving at Alexandria, a few hours will suffice to see all that is there of interest. One piece of advice before leaving the subject of Egypt: Eschew dragomen as far as possible.

The amount of money required for the journey will vary much, according to

the taste and habits of the traveler, the time spent at the various ports, the number of presents bought for friends at home, etc. In China and at Singapore, silver dollars are indispensable, and are at 15 to 25 per cent premium, American, and even British, gold being at a heavy discount. The traveler, on leaving San Francisco, had better take what money he will want with him, in Mexican or Peruvian dollars, for use until he is about to leave Singapore, at which place he can readily and profitably convert his spare dollars into English sovereigns. Should it be desired to have money orders, or drafts, sent from home to meet the voyager upon his route, Singapore or Alexandria are the best points to select. The same may be said of them as the best to meet ordinary letters from home. Singapore is about 55 days distant, by mail, from New York. DUNCAN, SHERMAN & Co., of New York, draw bills negotiable by the Oriental Banking Company's houses at Singapore, Galle, Bombay, Hongkong, or Calcutta.

The best hotel at Singapore is the "Adelphi," although the "London" has the greatest reputation, and the greatest crowd. At Alexandria, the "Peninsula and Oriental" is the best by far. Its rival, the "Hotel d'Europe," although patronized by the bulk of English travelers, is far inferior. The remarks about these hotels are made after personal experience in them all.

In China, and at other points along the route, most travelers are in the habit of buying silks, crapes, ivory work, curiosities, etc., for presents. These had better be packed in camphor-wood trunks, and left for shipment in some clipper sailing to the United States, as to undertake to carry them home with one's baggage would give an inconceivable amount of trouble when passing the custom-houses of Europe.

Passports are not necessary until reaching the ports of continental Europe. They can be readily obtained of the American consul at Alexandria. If the traveler has already obtained one, it is necessary at Alexandria to have it *vise* by the American consul, and also by the consular representatives of whatever European State he intends to pass through. Should the voyage be made from Alexandria to Southampton direct, no passports are required.

As the greater part of the route will be within the tropics, plenty of light summer clothes will be needed, as well as a large supply of shirts. Light clothing of excellent quality can be purchased in China at low rates.

The shortest time by steam from Hongkong to England is about 48 days.

BRITISH TRADE WITH RUSSIA.

The London *Times* of the 16th of June says:—Our exports to Russia have vastly extended in the last ten years; and are now on a considerably larger scale than they were before the Crimean war. The total value of British and Irish produce exported to Russia has been as follows since June, 1850:—

Years.	Exports.	Years.	Exports.
1850.....	£1,454,771	1855.....	.....
1851.....	1,289,704	1856.....	£1,595,287
1852.....	1,099,917	1857.....	3,098,819
1853.....	1,228,404	1858.....	3,092,499
1854.....	54,301	1859.....	4,039,199

It thus appears that, in a commercial point of view, the late war has not entailed any serious results upon us as respects our exports to Russia, and that, on

the contrary, the Russians have become better customers than ever. The total value of our imports from Russia was £1,299,547 in 1854; £20,173 in 1855; £9,999,579 in 1856; £9,929,104 in 1857; £8,452,979 in 1858; and £9,695,737 in 1859. The quantity of grain imported from Russia is now very considerable, and it is a noteworthy circumstance that the increase which has taken place in this respect has been attended with a corresponding increase in our exports. The following have been the yearly importations of grain and meal from Russia, in imperial quarters, since 1850:—

Years.	Total.	Years.	Total.
1850.....	953,029	1855.....	174
1851.....	1,334,417	1856.....	1,215,714
1852.....	1,301,826	1857.....	2,011,217
1853.....	1,706,887	1858.....	2,282,393
1854.....	708,703	1859.....	2,404,491

We used to hear, in protectionist times, a great deal about the drain of gold which it was said would certainly follow increased importations of corn; but while in 1850 we took 363,779 quarters of grain from the northern ports of Russia, and exported thither gold and silver bullion and specie to the amount of £1,103,902, in 1859 we received from the same northern ports 1,020,461 quarters of corn, and exported thither bullion to the amount of only £122,287. So much for theory reduced to practice.

JAPANESE TRADE.

The conference between the New York Chamber of Commerce and the embassy was productive of some interesting information. The following were the topics introduced by the embassy, as officially stated by the Committee of the Chamber:—

1. As to the nature and objects of the Chamber of Commerce, and whether it has any connection with the government?
2. As to any duty levied by the United States on goods exported to foreign countries?
3. What were the duties on foreign imports?
4. What discrimination, if any, is made between foreigners and citizens of the United States as to duties charged them on importations from abroad?
5. Whether foreigners had the same privileges and terms as citizens in the purchase of goods?
6. Whether the government of the United States has the right to prohibit the export of specific articles to other countries?
7. Whether the rates of freight charged by American vessels depended at all or were affected by the longer or shorter duration of the voyage?

In reply to the inquiry as to the price of farm hands and common laborers in Japan, the information was not very definite, but the inference drawn was that the prices were somewhat higher than in China.

Full answers were given to these and subordinate questions, and a deep interest was evinced on the part of the ambassadors in the replies given, and especially as to the magnitude of the commerce of this port with China, and with other nations.

In reply to the questions propounded by the Committee, the following was the substance of their remarks:—

1. That the mines of gold, silver, and copper in Japan were a monopoly of the government.
2. That they rarely got out more copper than was wanted for home use, and occasionally only did a surplus exist for export.
3. That the coal mines are owned partly by the government and partly by wealthy individuals.
4. That there exist no appliances for working the coal mines to any great depth.
5. That the tea districts of Japan were extensive; and that the production could be greatly increased if the foreign demand required it.
6. That in Japan, their preference was for green teas, and that they had some doubt whether the kinds of tea grown in Japan would suit the American markets.

When Mr. Low stated that he had received samples of the Japan teas, and that the qualities were approved of, the ambassadors expressed their surprise and pleasure.

7. Rice is abundantly cultivated in Japan, and forms a chief article of food. The export is generally prohibited, under the belief that a large export would advance prices, and thus operate oppressively on the common people.
8. In answer to the inquiry of the Committee, as to whether tea could be packed in the style of the Chinese, with a lining of lead, they replied that they had lead in abundance, but it was not applied to such use.

In reply to the question as to the production of raw silk in Japan it was observed that the cultivation for home use was still going on; and that the production could be largely increased if trade with other nations demanded it.

As the evening drew near its close, it was deemed advisable that a more detailed series of inquiries should be presented in writing, to which the Committee of the Chamber would make full replies; and also submit questions on their part, which would elicit information regarding the trade and resources of Japan.

BRITISH IMPORTS AND EXPORTS.

It was in 1854 only that the real value of British imports was first published. The real value of exports has been published for more than a century. Since 1854 the real value of imports and exports are as follows:—

	Exports.			
	British and Irish produce.	Foreign and colonial produce.	Total.	Imports.
1854.....	£97,184,726	£18,648,978	£115,833,704	£152,591,518
1855.....	95,688,085	21,012,956	116,701,041	143,660,335
1856.....	115,826,948	23,393,405	139,220,353	172,544,154
1857.....	122,066,107	24,108,194	146,174,301	187,844,441
1858.....	116,608,756	23,174,023	139,782,779	164,583,832
1859.....	130,440,427	25,203,163	155,643,590	179,334,981

The difference of £23,691,391 between the imports and exports in 1859, is accounted for by the fact that the value of the exports as declared by the merchants in England, on shipment, necessarily excludes not only the charges for freight, insurance, shipping, and landing incident to the conveyance of the goods to a foreign port and their delivery there, but also the profit attendant on their transfer from one country to another, while the value assigned to the imports, on the other hand, being computed from the prices which the goods bear in that market, must include both the charges just enumerated and the profit realized by the importer.

JOURNAL OF INSURANCE.

NEW JERSEY INSURANCE LAW.

AN ACT TO REGULATE THE BUSINESS OF FIRE INSURANCE BY COMPANIES OR ASSOCIATIONS, NOT INCORPORATED BY THIS STATE.

1. Be it enacted by the Senate and General Assembly of the State of New Jersey, That it shall not be lawful for any company or association chartered by another State, or foreign government, to transact any business connected with insuring property situated in this State against loss or damage by fire, until they shall have first filed a statement with the Secretary of State, setting forth the amount of the capital of said company, and all their present assets, income for the year past, amount of premiums received for the preceding year, on property situated in this State, amount of losses, expenses, and other payments, and the amount of existing liabilities for unpaid losses, and showing whether any, and if so how much, is contested on the ground of fraud or otherwise, and it shall be the duty of the Secretary of State to prepare a form of statement to be filled up by the foreign companies or associations, establishing agencies or transacting the business of insurance in this State, which form shall embrace the abovementioned particulars, and such others as may be deemed necessary by the Secretary of State to elicit the actual pecuniary condition of the company or association making the statement.

2. And be it enacted, That if, upon filing the statement aforesaid, it shall appear that the company or association is possessed of a sound, well-invested capital, of at least one hundred and fifty thousand dollars, over and above all claims and liabilities, and has given the bond to pay the tax hereinafter provided for, then the Secretary of State shall issue a certificate of authority, allowing an agency to be established in the county where such agency is applied for, for one year from the first of January; the statement above referred to shall be sworn to by the president and secretary of the company or association applying, and shall be renewed annually during the month of January in each year.

3. And be it enacted, That, upon filing the certificate, and annually thereafter during the month of January in each year, the agent on whose behalf the certificate of authority is issued, shall enter into a bond with the Collector of the County in which his agency is located, in the penal sum of one thousand dollars, conditional for the payment of a tax of two per cent on all the premiums paid or agreed to be paid to the same company, on all property insured by them in this State; and the account of premiums received by said company for insuring property in this State shall be sworn to by the president, secretary, and agent of said company, and shall be filed with the County Collector, and the tax of two per cent aforesaid shall be paid in the month of January in each and every year during the continuance of such agency.

4. And be it enacted, That the taxes paid to the County Collector, as provided for by the preceding section shall be paid over to the persons and for the use of the parties mentioned in the second, third, and fourth sections of an act entitled "A supplement to an act entitled 'An act relative to insurance companies, approved April fifteenth, eighteen hundred and forty-six,' approved March fifth, eighteen hundred and fifty."

5. And be it enacted, That there shall be paid to the Secretary of State, by every company seeking to establish an agency, the sum of twelve dollars for each annual statement filed, and for every certificate of authority the sum of five dollars.

6. And be it enacted, That the Secretary of State shall have authority to revoke and cancel any certificate of authority issued by him, upon being satisfied that the statement upon which it was issued is fraudulent, or that the capital of

the company, since the issuing of the certificate, has become impaired, and is of less amount than the sum mentioned in section second of this act.

7. And be it enacted, That if any person shall act as the agent of any foreign insurance company without having first obtained the certificate of authority as mentioned in section second of this act he shall pay a fine of one hundred dollars for each offence, which shall be sued for by the Collector of the County for the benefit of said county, or be paid over by said collector to the fire department fund, as is provided for in the case of taxes on premiums; the suit for the recovery of the fine aforesaid may be brought by a prosecutor of the pleas, or by the Attorney General, in any court of record of this State, and the person against whom a judgment shall be obtained may be committed to the county jail until such fine and costs are paid.

8. And be it enacted, That all and every person and persons who shall make or cause to be made, procure, or cause to be procured, or who shall directly or indirectly act in the making, or causing to be made, or in procuring, or causing to be procured, any agreement, contract, or policy of insurance against fire, upon property in this State, by any insurance company or association not incorporated by the laws of this State, shall be deemed and considered to be an agent within the meaning of this act, and shall be liable to the penalties herein mentioned.

9. And be it enacted, That the first statements contemplated and required by this act shall be made on or before the first day of May next, and the certificates of authority issued upon these statements shall authorize the continuance of the agency or agencies until the first day of January, A. D., eighteen hundred and sixty-one.

10. And be it enacted, That so much of all acts or parts of acts heretofore passed as may be inconsistent with this are hereby repealed.

11. And be it enacted, That this act shall take effect immediately.

Approved March 19, 1860.

NAUTICAL INTELLIGENCE.

AMERICAN TIMBER FOR SHIP-BUILDING.

A few months since, says the Boston *Traveller*, we published an article upon the defective and rotten condition of a portion of the planking and ceiling of the steam frigate Minnesota, now undergoing repairs in Charlestown navy yard, because we believed our navy department had been imposed upon by the parties who furnished the timber, which had decayed so rapidly. That article was extensively republished in English papers, and was referred to as an argument against the use of American timber for ship-building. Now such an inference, from our remarks is not logical, neither can it be sustained by the facts of experience. We cited the Minnesota as an exceptional case, and expressed our surprise that she should have been planked with such timber, when so much timber of undoubted quality could be easily obtained. The contract to furnish her planking was probably a political job, which the navy yard officers knew how to manage without running the risk of being removed. On the other hand, the planking and ceiling of the frigate Merrimac, built in this vicinity, was properly seasoned before used, and a sounder ship cannot be found anywhere. The same may be said of nearly all our ships of war. Take for example the old line-of-battle ship Ohio, now at Charlestown; we believe there has not been a plank put into her for the last twenty years, if not thirty—the Vermont is equally sound —in a word, with one or two exceptional cases, the causes of which are well known, our navy is probably the most durable in the world, because the timber of which the ships have been built, is the best. Our live oak is harder than

East India teak, and as durable, and of this our navy is framed; our white oak along the seaboard is so inherently sound, that it may be used without seasoning, and our hard pine knows no decay but tear and wear. Our navy yard authorities, who have made the qualities of wood the special subject of experiment, assure us, that our white oak for the purpose of ship building, is not only stronger, but more durable, than either English or African oak, and that our live oak is unrivaled the world over.

In support of these assertions, we may refer the English to the condition of the frigate Essex, which they captured in 1814. She was built in 1798, and continued fit for service, without any sign of decay, to 1837, when she was sold, not because she was unsound, but because a new class of vessels superseded that to which she belonged.

We believe that English and African oak and East India teak, are good woods for ship-building, and that the condition of the ships of the English navy is generally sound, yet there are cases of rot which might be cited, as exceptional, not to prove that their timber was naturally and inherently bad—as the English have asserted to be the case, because the Minnesota's planking was found partly defective and decayed—but to show that the timber had not been properly seasoned, or had been subjected to influences out of the ordinary course.

The frigate Vernon is a case in point. Built with the utmost care, under the immediate inspection of Sir WILLIAM SIMONDS, at the end of four years, she was found very rotten. We believe she has been since condemned. The "Foudroyant" line-of-battle-ship, in four years had to be nearly rebuilt, in consequence of dry rot. The Eden, of 26 guns, in two years, was so decayed that it was necessary to remove all her wales, the sheer-strake, and a considerable portion of her topsides. Large quantities of fungus covered her timbers. The Isis, built in 1840, seven years afterwards, had 78 timbers taken out rotten; all the ceiling in the hold; mast-steps, and timber-strakes, were also decayed. Several other cases, even of a recent date, might be cited to show that the British navy is not rot-proof; but we will turn from the navy to the merchant service.

The West India mail steamers Clyde, Tweed, Tay, and Taviot, all first class vessels, built without regard to cost, within the past six years, in consequence of dry rot, have had to be repaired at an expense of $300,000. There is little doubt that dry rot is more general among British than American shipping, and that the latter last longer because built of more durable materials. The British generally fasten and season their ships more carefully than we do, and provide them with better pumps, and heavier ground tackle, and to these, not to the superiority of timber, may be attributed their age. We refer to the mercantile marine alone; our navy, we contend, though small, is the model navy of the world in the durability of its ships, and to keep it so, is the object of exposing any of its defects, that may come to light, with a view of having them guarded against in future. The "*Scientific American*," which copied the facts in relation to the Minnesota from the *Traveller*, will probably be as much surprised as we were, to see that they have been urged as an argument against the durability of American ship-timber.

ALTERATION OF LIGHTS IN GULFS OF RIGA AND FINLAND.

The imperial Ministry of Marine of Russia has given notice, that henceforth from the opening until the closing of the navigation of the Baltic, a light will be exhibited from the new lighthouse erected on the southeast elevation of the island of Runo, Gulf of Riga, instead of the light hitherto shown from the wooden lighthouse on the northwest extreme of that island. The light will be a fixed white light, elevated 200 feet above the mean level of the sea, and in clear weather should be visible from a distance of 16 miles. The illuminating apparatus is catoptric or by metallic reflectors. The light-tower, in form of an hexagonal pyramid, and 102 feet high, is planked with boards and painted yellow; the frame of the lantern is painted red, and the top green. On account of the wood which covers this elevation of the island, only the upper part of the light-tower

and the lantern will be seen when approaching it from seaward. Its position is given as latitude 57° 48′ 8″ N., longitude 23° 15′ 32″ east of Greenwich.

ALTERATION OF DAGER ORT, SWALFER ORT, LYSER ORT, AND FILSAND LIGHTS.

Also, that on the 27th May, 1860, the lights would cease to be exhibited from the lighthouse on Dager Ort, on Swalfer Ort, on Lyser Ort, and on Filsand Island, situated on the western shores of Dago and Osel islands, and on the coast of Kourland, on account of repairs and changes in the mode of lighting them, but that they would be relighted, with alterations, at the following dates:—On and after the 13th July, 1860, the lighthouse on Dager Ort will exhibit a fixed white light varied every minute by a bright flash; the illuminating apparatus will be dioptric or by lenses, of the first order. The lighthouse on Swalfer Ort will exhibit a revolving white light, (the period of revolution is not given;) the illuminating apparatus will be catoptric or by metallic reflectors. The lighthouse on Lyser Ort will exhibit a fixed white light; the illuminating apparatus will be dioptric or by lenses, of the second order. On and after the 13th August, the lighthouse on Filsand Island will exhibit the same revolving light as heretofore, but the illuminating apparatus will be catoptric or by metallic reflectors. By command of their lordships,

JOHN WASHINGTON, Hydrographer.

London, February 23, 1860.

REVOLVING LIGHT ON THE CAPE OF GOOD HOPE, SOUTH ATLANTIC.

The Colonial Government at the Cape of Good Hope has given notice, that on and after the 1st day of May, 1860, a light will be exhibited from the lighthouse recently erected on Cape Point, the western point of entrance to False Bay, Southern Africa. The light will be a revolving white light, which will show a bright face for the space of twelve seconds once every minute. It will be visible all round the compass, except between the bearings from a ship of S. S. W. and S. ¼ E., and between S. S. E. ¼ E. and S. S. E. ½ E., on which latter arc of 7° it will be obscured by the intervention of a peak, rising 64 feet above the light, at 1,800 yards from the light tower. The light will be elevated 816 feet above the mean level of the sea, and in clear weather should be seen from a distance of about 36 miles. The illuminating apparatus is catoptric or by reflectors of the first order. The light-tower, which is iron, 30 feet high, and painted white, stands N. by W. ½ W. (N. 49° W. true,) distant 925 yards from the Dias Rock, which lies close to the south extreme of Cape Point. From it the Anvil Rocks bear S. S. E. ¼ E. (S. 54° E. true,) distant about 1¼ miles; the Bellows Rock S. S. W ½ W. (S. 1° W. true.) 2 miles; the southwest reef W. ¼ S. (S. 55° W. true,) 1¼ miles; and the Whittle Rock N. E. by E. ¼ E., 7¼ miles. Its position is latitude 34° 21′ 12″ S., longitude 18° 29′ 30″ east of Greenwich.

Directions.—A current varying in strength sets round the cape and turns to the northwest from the Bellows Rock. This rock always breaks; but not so the Anvil, which only breaks at low water and with a heavy swell. Sailing vessels should not pass between these dangers and the cape, unless with a commanding breeze. The rocky patch named the Southwest Reef lies W. by S. ½ S. (S. 42° W. true,) one mile only from the southwest extreme of the cape, and there is foul rocky ground between it and the shore. Vessels from the eastward should not bring the light to bear more westerly than N. W. ¼ W., by which they will clear all danger off Cape Hanglip. A tongue of low land stretches from this cape in a S. W. ½ W. direction for one and two-tenth miles, rendering caution necessary in passing Hanglip in hazy weather, especially if bound into Simons Bay. If bound for Table Bay from the eastward, vessels, after rounding the Cape of Good Hope and passing Slangkop Point, should not shut in the light with that point until the lights on Green Point become visible, which will be on an E. by N. ½ N. bearing. This course will lead about 2 miles to the westward

of the Vulcan Rock, which lies off the northern point of entrance to Hout Bay; a course for Table Bay may then be shaped with safety. Vessels from the westward bound for Simons Bay, after rounding the Cape of Good Hope, and having brought the southern end of the lofty Zwartkop range, (which is over the northern side of Smiths Winkle Bay,) to bear N. W. by W. ½ W., should keep the light on Cape Point between S. S. W. ½ W. and S. W. ½ W., until the Roman Rock light bears between north and N. by W. ½ W., when they may haul towards it. These limits leave the rocks off Miller Point on the one hand, and the Whittle Rock on the other, half a mile distant. By day should the weather be hazy, and the whitewashed mark and beacon for the Whittle Rock indistinct, there is a dark peak over the southern side of Hout Bay, which being brought on with Elsey Peak on a N. by W. bearing, will lead clear (but close) to the westward of the Whittle Rock. It is to be observed that there is no buoy at present on the Whittle Rock. The bearings are magnetic. Variation 29° 40′ west in 1860. By command of their lordships,

JOHN WASHINGTON, Hydrographer.

London, April 2, 1860.

GOODWIN SANDS.

Notice is hereby given, that an additional buoy, painted black and white in vertical stripes, and marked northwest Goodwin, has been placed in 11 fathoms at low water spring tides, near a spit of dry sand on the northwest side of the Goodwin, with the following marks and compass bearings, viz.:—Upper Deal Mill in line with a white house, or twice its length to the right of the time ball tower at Deal W. by S. ½ S.; the end of the cliff in Pegwell Bay, midway between Minster Mills N. W. ½ N.; St. Lawrence Mill, in line with St. George's Church, Ramsgate N. N. W. ½ W.; Gull Light-vessel W. ½ S.; Bunt Head Buoy S. W. by W.; Goodwin Knoll Buoy N. E. by E. ½ E.; Gull Buoy N. by E. ½ E. By order,

P. H. BERTHON, Secretary.

Trinity-House, London, May 29, 1860.

MARGATE SAND AND NORTH FORELAND LIGHTHOUSE.

Notice is hereby given, that in consequence of the extension of Margate Sand to the eastward, it has been found necessary to move the northeast Margate and east Margate buoys, in that direction; and that those buoys now lie with the following marks and compass bearings, viz.:—Northeast Margate Buoy, in 8½ fathoms at low water spring tides, with the low tower of Moro Castle, just seen east of Neptune's Tower south; Margate Old Church tower, open to the westward of the New Church, the apparent length of the body of the latter S. S. W. ½ W.; east Margate Buoy S. ½ E.; North Spit Buoy W. by N. ½ N.; Tongue Light-vessel N. W. ½ W. East Margate Buoy, in 4½ fathoms, with a small black mill, (called "Draper's Mill,") its apparent length open east of Margate West Mill S. W. by S.; Margate Old Church tower, open east of the New Church, the apparent length of the body of the latter S. W. ½ S.; Minster East Mill, in line with the west end of the Royal Terrace, Margate S. W.; southeast Margate Buoy W. by S.; Longnose Buoy south; Elbow Buoy S. by E. ½ E.

Notice is also given, that, in order to enable vessels at night to keep to the eastward of Margate Sand, it is intended that on and after the 4th June next, a red strip of light shall be exhibited from the lantern of the North Foreland Lighthouse, in a direction from N. by W. ½ W. to N. ½ E., to show from the Tongue light-vessel to one cable's length east of Margate Sand. By order,

P. H. BERTHON, Secretary.

Trinity-House, London, May 29, 1860.

COMMERCIAL REGULATIONS.

CANADIAN AND AMERICAN TARIFFS.

The report of JAMES W. TAYLOR, Esq., on the reciprocity treaty with Canada contains the following comparative duties :—

Articles.	Rates of duty. American tariff. 1846.	1857.	Canadian tariff. 1858.
Manufactures of wood	30	24	15
Manufactures of mahogany	40	40	15
Wax, bees'	20	15	15
Refined sugar	30	24	Specific, $2 50 per 100 lbs.
Chocolate	20	15	15
Spirits from grain, whisky	100	30	Specific, 18c. per gallon.
Spirits from grain, other	100	30	" 50 to 100c. per gallon.
Molasses	30	24	" 4c. per gallon.
Vinegar	30	24	" 6c. "
Beer, ale, porter, cider	30	24	" 8, 25, 12½c. (*Vide.*)
Linseed oil	20	15	15
Spirits of turpentine	20	15	15
Household furniture	30	24	20
Carriages and cars	30	24	20
Hats	30	24	20
Saddlery	30	24	24
Candles	20	15	20
Soap	30	24	Specific, $1 25 per 100 lbs.
Soap, perfumed and fancy	30	24	20
Snuff	40	30	Specific, 10c per lb.
Tobacco, manufactured	40	30	" 5, 7½, 10c. per lb. *ad valorem.*
Leather	20	15	20
Leather, boots and shoes	30	24	24
Cables and cordage	25	19	Free.
Gunpowder	20	15	15
Salt	20	15	Free.
Lead	20	15	5
Iron, pig, bar, nails, etc.	30	24	5
other manufactured	30	24	5
agricultural implements	30	24	" spades," etc. 20
Copper, in pigs and bars	5	4	5
manufactures of	30	24	20
Brass, in pigs and bars	5	Free	Free.
manufactures of	30	24	20
Brass and copper wire and cloth.	30	24	5
Medical preparations	30	24	20
Medical drugs	20	15	15
Cottons (average duties)	25	19	15
Hemp, manufactures of	20	15	15
Wearing apparel	30	24	25
Earthenware	30	24	15
Combs	30	24	15
Buttons	25	19	16
Brushes and brooms	30	24	20
			(Brooms, corn—specific, 50c. per doz.)
Umbrellas and parasols	30	24	15
Printing materials	20	15	15
Musical instruments	20	15	20
Books and maps	10	8	Free.
Paints	20	15	15
Glassware	30	24	20
Tinware	30	24	5

Articles.	Rates of duty. American tariff. 1847.	1857.	Canadian tariff. 1858.
Manufactures of pewter and lead	30	24	15
Manufactures of marble.....	30	24	20
Manufactures of India rubber....	30	24	20
Manuf's of gold and silver leaf..	15	12	20
Artificial flowers.....	30	24	15
Lard oil.....	30	24	15
Manufactures of wool.....	30	24	15
" hair	25	19	15
" fur	30	24	20
" goat's hair.....	25	19	20
" silk.....	25	19	20
" worsted.....	25	19	15
" hemp.....	20	15	15
" flax.....	20	15	15

Average ad valorem duties in force, 1857, about 21 per cent; in 1858, about 16 per cent.

POSTAL DEPARTMENT.

CUBAN INLAND MAILS.

The mails are made up daily at Havana Post-office for the following places. Postage 6¼ cents single letter, prepaid:—

Aguacate.
Alquizar.
Artemisa.
Alvarez.
Aguica.
Bahia Honda.
Bainoa.
Bataband.
Bejucal.
Banaguises.
Bemba.
Bolondron.
Baracoa.
Bayamo.
Cano.
Consolacion del Sud.
Consolacion del Norte.
Candelaria.
Caibarien.
Ceiba del Agua.
Cayajabos.
Cabanas.
Cardenas.
Camarones.
Cimarrones.
Coliseo.
Camarioca.
Cienfuegos.
Corralilla.
Cifuentes.
Cartajena.
Cuba (St. Jago.)
Cobre.
Canto del Embarcadero.
Ciego de Avila.
Esperanza.
Guara.
Guanajay.
Guines.
Guanabacoa.
Guira de Melena.
Guamutas.
Guaimaro.
Hoyo Colorado.
Holguin.
Isabel.
Jaruco.
Jibara.
Jiguani.
Limonar.
Lagunillas.
Matanzas.
Madruga.
Mariel.
Melena.
Macurijes.
Macagua.
Manzanillo.
Mayari.
Moron.
Nueva Gerona.
Nueva Paz.
Nueva Bermeja.
Navajas.
Nuevitas.
Palacios.
Pozas. (las)
Puentes Grandes.
Pinar del Rio.
Puerta de la Guira.
Palma Sola.
Perico.
Quiebra Hacha.
Quivican.
Quintana.
Roque.
Remedios.
San Diego de Nunez.
San Cristobal.
San Felipe.
San Diego de los Banos.
San Antonio.
Santiago.
Santa Maria del Rosario.
San Nicolas.
San Jose de las Lajas.
Seiba Mocha.
Santa Isabel de las Lajas.
Santo Domingo.
Sagua la Grande.
Sabanilla.
Santa Catalina de Guaso.
Sagua de Tanamo.
Sancti Spiritu.
Santa Cruz.
Tapaste.
Tunas. (las)
Trinidad.
Union de Reyes.
Villa Clara.
Yaguaramas.

These lines are served by railroads, steamboats, and by horses in a few of the principal turnpikes and high roads. To Isle of Pines, a steamer once a week.

THE TELEGRAPH AND THE PRESS.

An adjourned meeting of the American Telegraph Company was held at the Astor House, New York, on Friday, to take into consideration the difficulties existing between it and the newspaper press. After a discussion extending over five hours, it was unanimously resolved that after the report of the committee, appointed some time since to arrange the scale of tolls, shall have been made and approved of, the president shall appoint a committee of three stockholders to conclude, on the part of the company, a permanent contract with the Associated Press, on the basis of the company's scale of charges. The exhibit of expenses and receipts of the company was as follows:—

Total receipts from November 1, 1859, to February 1, 1860.....	$251,636 26
Total receipts from February 1, 1860, to May 1, 1860.....	233,758 79
Total	$485,395 05
Net profits for first three months.....	$52,451 71
Net profits for second three months.....	70,948 87
Total profit for six months.....	$123,400 58
Same estimated for next six months	123,400 58
Profits for year.....	$246,801 16
Less interest on bond.....	11,020 00
Present net profit.....	$235,781 16

PREPAYMENTS OF POSTAGE BY STAMPS.

The recent order of the Postmaster-General requiring the prepayment of postage to be made in all cases by United States postage stamps is said to have been misunderstood by some postmasters, as compelling the prepayment of postage upon all letters and other mail matter addressed to foreign countries. We are, therefore, requested to correct any misapprehension on this subject by stating that the purpose of the new regulation, as is therein clearly expressed, is simply to require prepayment by postage stamps instead of in money, in all cases where postage is prepaid in the United States, leaving it, as heretofore, entirely optional with the senders to pay the postage in advance or leave it unpaid, when mailing letters for Canada or other British North American provinces, Great Britain, Prussia, France, Belgium, and the German States by the Bremen and Hamburg mails, as our postal arrangements with each of those countries have adopted the principle of optional prepayment. The new regulation referred to is in the following words:—

From and after the 1st of June, 1860, the postage upon all transient printed matter, foreign and domestic, and upon all letters, foreign and domestic, must be fully prepaid by United States postage stamps, except in cases where prepayment on letters, &c., to foreign countries is optional, and the senders do not wish to prepay.

In order to facilitate the prepayment of postage on letters addressed to foreign countries, and to avoid the necessity of affixing thereto a large number of stamps, which would in some instances increase the weight so as to subject the letters to additional postage, the Department has ordered the issuing of new stamps of the denomination of 24, 30, and 90 cents respectively.

The 24 cent stamps will be ready for distribution next week, the 30 cent stamps soon thereafter, and the 90 cent stamps as soon as they can be procured.

JOURNAL OF MINING, MANUFACTURES, AND ART.

TIN OF COMMERCE.

Four classes of tin find their way into our market. These are denominated "Banca," "Straits," "English," and "Spanish." The first is the best, and is the principal sort which we employ. Our rocks yield an abundance of gold, but not a pound of American tin has ever been sold in our marts. Traces of this metal have been found at Lyme, New Hampshire, Gotham, Massachusetts, and in some parts of Virginia; but we have no tin mines.

Banca tin is always sold for about two and three cents more per pound than any other, because it is a reliable article, and its quality can be taken upon trust. The honest Hollander deserves credit for this confidence in the tin with which he furnishes us. Its name is derived from the island of Banca, where it is obtained, and which is under the government of the Dutch East India Company. Great care is exercised in smelting the ore to obtain the metal pure and of a uniform quality, and the manner in which business is done in the selling of it is peculiar. The company makes public sales of this metal only once per annum, in the month of July, and accumulates the yearly products of their mines for this purpose. Rotterdam, in Holland, is the place of sale; and, about two or three months previous to this event. the company sends notices to all civilized countries of the amount to be sold, with the reliable guaranty that not another pound shall be furnished until July of the subsequent year. These annual sales were commenced about twenty years ago, and the promises of this Dutch company have always been sacredly kept, although, in many instances, great temptations have been presented by a high rise in the prices of the metal after the public sales. Those who purchase Banca tin at Rotterdam, do so with the perfect confidence that subsequently a flood of this metal cannot be poured into the market to lower their prices. The investment in it, therefore, is very safe, and the Rothschilds and other large bankers are frequent purchasers for the purpose of safely investing idle funds.

In 1856, there were 167,000 pigs of Banca (70 lbs. each) sold at Rotterdam; in 1857, 191,000; in 1858, 191,000; in 1859, 139,000 only. There was quite a falling off in the product last year, and, as a consequence, there has been a rise from two to three cents per pound in Banca since the news of the annual sales the last month arrived. Of the amount of this tin taken by the United States in four years, there were, in 1856, 32,316 pigs; in 1857 (year of the panic) 14,000; in 1858, 31,791; and this year, so far, 27,000 pigs. Our "white-ware" manufacturers do not find hard granules and other foreign substances in this tin as they do in other brands; hence its high character for the most important purposes.

Straits tin derives its name from vessels which trade with ports in the Indian Archipelago, and pass through the Straits of Malacca. They collect this metal at Singapore, at Borneo, and other places; and, although some of the pigs are as good as those of Banca, on the whole it is not so reliable, but ranks next in value.

English tin is obtained in Cornwall, where the most productive mines of this

metal in the world are located. The best qualities of English tin, it is said, never reach our markets; the poorer qualities only are exported. The "refined English," which is esteemed as good as Banca, and sells for the same price in London, is all kept for British manufacturing purposes, the demand for it being greater than the supply.

Our Spanish tin comes from Mexico and South America. Its quality is poor, owing to the slovenly method employed to smelt the ore. It could be refined to equal any other; but as it is, the pigs of it sold in our market are very impure.

This metal (tin) deserves more attention from our metallurgists than it has received, as its market value is steadily on the increase, and the demand for it advancing rapidly, because of its more general application to various new purposes in the arts. Banca tin is double the price it was twenty years ago; the wholesale price at present is 33 cents per pound, and the prospect is that it will attain to a much higher figure. Dr. JACKSON, of Boston, who has discovered specimens of tin ore in New Hampshire, advises further prospecting for the metal, and we urge his suggestion upon metallurgists in every section of our country, as it costs us about $5,800,000 annually for it, the largest item being plates and sheets valued at $4,700,000, a sum which might be saved if we had tin mines of our own.

PEGGING SHOES BY STEAM.

The Haverhill *Publisher* gives the following account of a steam factory in that place for sewing the seams and pegging shoes:—

In a small room, petitioned off for the purpose, is a neat and compact steam-engine of five horse power, which carries all the machinery, even to the stitching machines. The remainder of the basement is occupied by machines for cutting, stripping, rolling, and shaping the soles. The stock is then passed to the store above, where the shoes are lasted, and the outer soles are tacked on by hand, by which process they are prepared for pegging. The pegging machines are simple in their construction and mode of operation, but perform the work with great dispatch and accuracy, driving the pegs at the rate of fourteen a second. One of the most curious operations of the machine is the manner in which it manufactures the peg for its own use. A strip of wood of the required width, and neatly laid in a coil one hundred feet in length, is put into the machine, and at every revolution it is moved forward, and a peg cut off and driven into the shoe. Two of these machines are in operation at this establishment, and the rapidity and unerring accuracy with which they perform the work is truly astonishing.

After being pegged, the shoes are passed up to the third story, where the bottoms are smoothed, scoured, and brushed, and then sent into the front of the building, to be packed ready for sale and transportation.

The fourth story of the rear building is occupied by the ladies who tend the stitching machines, which are also run by steam, thus saving them from what otherwise must prove a laborious and fatiguing operation.

Some dozen hands are employed in the manufacture of these pegged shoes, completing about twenty cases per week, and the work being almost entirely accomplished by machinery, gives it a uniformity as to style, shape, and general appearance, which it is impossible to obtain by hand. A look through this "bee-hive" cannot fail to prove both instructive and entertaining. The pegging machine has been invented but a few years, and has been in operation at this establishment but a few weeks. The work, even now, is said to be fully equal to that performed by hand, and must, therefore, we think, certainly supersede it when the machinery is brought to a higher state of perfection, which in the nature of things (it being impossible to stay the progress of inventive Yankee genius) must be continually taking place.

COPPER MINING IN CORNWALL.

It was not until the middle of the last century, that copper mining in Cornwall received its greatest impulse. Mines were sunk to greater depths; new hydraulic engines were constructed; the machinery improved; and the operations generally systematized, and reduced to method. Hence it was not long before this important branch of mining enterprise assumed its true position in the valuable produce of the country. Sir CHARLES LEMON has computed that for fourteen years previous to 1758 the yearly value of Cornish copper was £160,000. Half a century later the same annual produce had increased to £550,000; and now the copper works of Cornwall and Devonshire are undertakings of enormous magnitude. They are sunk in some cases to the enormous depth of 300 fathoms, and are drained by means of the celebrated Cornish engines, which, for size and power, are unparalleled in any country in the world. They are generally worked by companies of adventurers. If the mine be on waste land, it belongs to the revenues of the Duchy of Cornwall, and the lease is obtained from the crown. If on private property, it is let from time to time on special terms, and these consist of a payment in kind, varying from 1 25th to 1 10th part of the produce. It is proper to state, however, that these rates, or "lord's dues," as they are termed, are modified with the facilities or the difficulties of working the mine. Some copper mines pay thousands of pounds sterling of rent; others, again, pay no rent whatever. The profits arising from them, however, are occasionally very large. Sir HENRY DE LA BECHE mentions a copper mine—that of Wheal Alfred, in Cornwall—having afforded at one time a net profit of £140,000.

FERRUM, OR TRUE IRON.

Ferrum is the Latin as well as the chemical name for iron. In its chemical sense it means pure iron, in distinction to the common word, iron; because all the iron of commerce is not pure iron, but a compound of iron and charcoal. Iron and steel vary only according to the quantity of charcoal combined with the iron. Pure iron, *i. e.*, ferrum, is never seen but in a laboratory or chemical museum; there is, however, no substance perhaps so widely and universally diffused as ferrum, in combination with this and that, throughout the world's surface. Iron exists in almost every soil; it can be traced in almost every plant and fruit. It not only exists in animals, but its quantity is so regular in the human blood, that ferrum is now considered one of its natural constituents; in fact, physicians distinguish healthy blood by the amount of iron it contains. The manifold uses of this truly precious metal render it more valuable to man than any other metal, and from the numerous and important applications to which it is put, it appears almost indispensable to the condition of civilization. Its frequent mention in Scripture indicates the early period at which man became acquainted with its qualities. All kinds of tools and implements, such as the ax and the harrow, are mentioned in the Bible; and also even some things which are almost considered to be modern inventions. Thus, King Og, of Bashan, is described as having a "bedstead of iron." The "iron pen" is also twice spoken of, but that refers to an instrument used for "graving," not writing, in one case, and is used figuratively in the other. Iron gates, iron chariots, and iron pillars, are also mentioned, sufficient to show that nearly all the appli-

cations of iron of our day date from ages ago. The mechanical uses of iron are innumerable, from the ponderous engine to the lady's needle; from the pit saw to the surgeon's lancet. The chemical properties of iron are equally numerous. Its presence gives color to many precious stones; the garnet, the ruby, the lapis-lazuli, the topaz, all owe their tint to ferrum. Many artificial colors and pigments owe their brilliancy to iron, such as Prussian blue, which is a compound of iron. Even the ink with which we now write is a compound of iron; and so we may go on enumerating its value to the currier, dyer, and druggist—a long chain of many curious links. Independently of the precious mechanical qualities and chemical properties of iron, there appears something so mystical in its nature, that man's study of it reveals only the more to his astonishment. Of these mystical qualities, none is more mysterious than that of its magnetical properties, and its power, when poised, to set itself at right angles to the motion of the earth's rotation which we call "polarity." What a mass of mystery is there in that little balanced needle by which the mariner directs his course over the foaming wave to a port unseen and unknown:—

> "Hail, adamantine steel, magnetic lord,
> King of the plow, the plowshare, and the sword!"

Ferrum yields up its strength and its might to water made sour with sulphuric acid. In this liquor iron dissolves and becomes invisible. When the solution is saturated with iron and then evaporated, a beautiful salt (sulphate of iron) is produced, which crystalizes like bits of broken frozen sea.

A SOUTHERN SHOE FACTORY.

A joint-stock manufactory has been organized in New Orleans for the manufacture of shoes. The machine is calculated principally for coarse work, or plantation brogans, and an idea can be formed of the advantages represented by the following calculations:—With a force of forty-two men and fifty boys, representing a daily expense of $125 75, it is expected to manufacture 1,600 pairs of brogans per day. The same article cannot be manufactured in Massachusetts for less than 21 cents per pair. The difference in favor of this manufacture by machinery would, therefore, be over ten cents on each pair of shoes, without counting the important items of freight, commissions, and insurance on the shoes imported from the North. The trial was a successful one. A workman can make a common stout brogan in fifteen minutes—more than double the time that would be necessary if, the manufacture being in operation, with its requisite number of workmen, the shoe had passed from hand to hand during the finishing process. The upper leather being cut and sewed with a sewing machine, the sole leather used in strips of the required length, by a cutting machine, it passes through three different sets of rollers, which makes it smooth, and compresses it to an even thickness. Another machine, with assorted dies, then cuts the soles, which are drilled all around by another piece of machinery. It is then adjusted with the upper leather on a last and pegged by hand work, after which the heels and soles are smoothed in a finishing machine, and the string holes drilled. A new pegging machine has been lately invented, which is said to be very successful. If adapted to this machine it would be a further saving of over five minutes per shoe. It is of French invention, having been, we are informed, in operation for many years in the city of Lyons, France. Mr. De Veuve has the patent-right in the United States.

CHANGES IN LABOR VALUE.

At a celebration in a factory at North Adams, Massachusetts, last week, Mr. BRAYTON remarked that when he opened his mill in 1832, girls' wages were 42 cents a week, and calico cost $1 a yard; now some of his girls receive $6 a week, and calico is sold at 8 cents a yard.

This is an exceedingly interesting fact. In 1832, twenty-eight years ago, a girl worked in that same factory in North Adams for 42 cents a week, or twenty-six weeks to pay for a calico dress, of eleven yards, at one dollar a yard. Now a girl receives $156 for an equal service, and pays for a calico dress, of eleven yards, at eight cents a yard, eighty-eight cents, leaving of her wages over and above what the girl twenty-eight years ago had, after paying for the calico dress, $155 12.

This presents a striking contrast between then and now. Whether the girl with the advanced price for her labor really saves any more money at the end of a series of years, now than then, is a matter of doubt—or whether she with the advanced wages will make a man any better wife than the girl who wrought for 42 cents a week, is also quite uncertain—the probabilities being altogether in favor of the true, womanly qualities of the maid of earlier times. Formerly mothers educated and trained their daughters to become helps meet for man. Now it is far otherwise. If a young man gets a wife, he soon finds out that he has not secured a help meet for him—he being a working man—but one that involves upon him the necessity of hiring a domestic to take care of his household affairs and his wife.

One word further in regard to wages. They are high or low, not according as the sums received or paid are large or small, relatively, but according to what they will purchase of the necessaries of life. If a mechanic receives two dollars a day, and pays ten dollars a barrel for flour, and all other articles of provisions being at the same rate, he is no better off than when he received one dollar a day, and bought his flour for five dollars a barrel, and other things necessary for his family at the same reduced rate. But those who furnish two dollars in bank bills for circulation, are decidedly better off than when they can circulate but one dollar. The prices of provisions seem at times to be kept up above what the supply would require, by an understanding between the wholesale dealers and bankers. Hence, it often happens that heavy operators can get large notes discounted when accommodations cannot be obtained by those desiring small sums for a retailing business, or for other purposes.

But our purpose was to invite the attention of our readers to the difference of wages at different periods, and a comparison between them and the things to be bought for food and clothing, and to impress the minds of mechanics, operatives, and farmers, that the quantity of the necessaries of life, bought by a day's, week's, or month's wages is the true scale for determining the question of wages, whether high or low.

TIDAL MOTIVE POWER.

Dr. SEGUIN, of Paris, has proposed a novel and ingenious application of tides as a motive power, applicable to machinery and agriculture. He proposes to construct, at the water tide, two monster basins—one being furnished with gates, permitting the entry of tide water, but preventing its exit—the other, having

gates, permitting the exit of water, but opposing its entrance from the tide. By this means, the first basin would be filled with water at high tide, and the other would be completely emptied to the level of ebb tide. A canal or race being constructed between the two basins, would thus become the seat of a continuous current in one direction. By this means the alternating motion of the water will be converted into a continuous action, calm, as easily regulated and susceptible of the same applications as natural water-courses. The only question to be settled, in considering the applicability of this scheme, is its economy.

LAKE SUPERIOR MINES.

From a speech delivered before the Senate of Minnesota, we obtained the following statistics of the products of Lake Superior mines:—

1855— 3,190 tons copper, worth $500	$1,398,000
1,444 " iron, " 15	21,660
Total	$1,419,660
1856— 6,726 tons copper, worth $500	$2,868,000
12,500 " iron, " 15	187,500
Total	$3,050,500
1857— 5,760 tons copper, worth $500	$2,880,000
27,500 " iron, " 15	412,000
Total	$3,292,500
1858— 6,944 tons copper, worth $500	$3,472,000
33,500 " iron, " 15	502,500
Total	$3,974,500
1859— 7,250 tons copper, worth $500	$3,663,000
71,000 " iron, " 15	2,127,000
Total	$5,790,000

COAL IN ENGLAND.

The product of coal in England is as follows, by counties:—

Durham and Northumberland	tons 15,853,848
Cumberland	920,187
Yorkshire	8,502,150
Derby, Nottingham, Leicester	4,710,750
Warwick	956,500
Staffordshire	6,680,780
Lancashire	8,050,000
Cheshire	695,450
Shropshire	769,360
Gloucester, Somerset, Devon	1,121,250
North Wales	1,022,500
South Wales	7,495,289
Scotland	8,926,249
Ireland	120,750
Total in tons	65,008,649

MINING FORTUNE.

They have a " poet " at Pike's Peak, who has perpetrated the following:—

"Luck varies with the men who hunt
For gold, as I'll explain:
Some find the ore *in creases!*
While others seek in *vein!*"

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

CONNECTICUT RAILWAYS.

The Seventh Annual Report of the Railway Commissioners of the State of Connecticut is received, from which we tabulate the following information, placed for comparison along side of the operation of the Massachusetts roads for the same year, 1859 :—

	Connecticut.	Massachusetts.
Number of railways	11	41
Length in miles	710	1,380
Cost of same	$27,461,247	$61,611,721
Capital paid in	16,486,716	45,822,352
Funded debt	7,055,348	15,166,121
Floating debt	386,814	1,063,932
Total debt	9,512,452	16,486,517
Annual revenue	3,668,545	9,771,378
Working expense	2,268,426	5,561,274
Net income	1,410,116	4,210,704
Revenue per mile run	$1 63	$1 64
Expense per mile run	1 01	93
Net income per mile run	62	57
Number of miles run	2,250,875	5,949,761
Cost in cents per mile run—		
For road repairs	23.8	25.2
For engine repairs	7.2	7.6
For car repairs	6.5	7.8
For engine fuel	13.6	11.8
Passengers carried in the cars	2,923,991	11,974,393
Passengers carried one mile	46,984,004	184,468,837
Tons of freight carried	668,791	3,616,733
Tons carried one mile	25,881,724	112,621,312
Net income per cent on cost	5.1	6.8

The Boston and New York Central Railway has, in the above, been omitted, as no return of its operation is made.

RAILWAYS IN INDIA.

A valuable history of the Indian railway system has been furnished in a report to the president of the Indian Council, by Mr. JULAND DANVERS, the secretary of the Railway Department at the Indian office. It describes, amongst a vast number of other details, the progress of each company from its commencement, the natures of the guaranties accorded, the amounts of capital still to be raised, the scale of receipts and fares, and extent of traffic in each instance, the number of persons employed, European and native, and the respective rates of mortality among them. The system dates from 1845, when the East Indian and Great Indian Peninsula Companies were respectively projected, and the number of companies now in existence is eight, employed to open 4,917 miles of communication, exclusive of the navigation of the Indus from Kotree to Moultan, a further distance of 570 miles. The largest of the companies is the East Indian, which will require a capital of £19,000,000, and the smallest the Calcutta and Southeastern, with a capital of £250.000. The total capital already sanctioned to be raised under guaranty is £34.133,000, and the total estimated to be necessary for these companies is £52,430,000. Of the amount authorized

£27,079.712 had been raised at the end of 1859, of which but £625,971 had been obtained in India. Out of every £1,000,000 about £555,000 is expended here for iron, other materials, etc. Among the Europeans employed the average percentage of deaths in 1859 was 2.9, while the rate of mortality in the army is reckoned, exclusive of war casualties, at 6 per cent. In this respect the experience of the Scinde Company has been the most favorable. The average number of passengers per mile on all the railways open in India was in the year 1859, 6,533, of which 48.6 was contributed by the East Indian, 41.6 by the Great Indian Peninsula, and 10.2 by the Madras. The proportion of first-class was only 1.2 per cent, and of the second only 6.2, the great third class total being 92.6 per cent. The aggregate receipts were £402,025, of which £157,031 was from passengers, £244,994 from goods; and the working expenses being £187,065, there were total profits of £214.960. The cost of the lines thus opened was £4.087,000, and the guarantied interest upon it being not more than £201,850, the government was practically relieved from any payment for them. The goods traffic is gradually gaining on the passenger traffic, and this feature is thought likely to increase in proportion as the lines are extended. In 1856 the passenger traffic comprised 55.40 per cent of the whole, and last year only 39 per cent.

The following statement shows, in a succinct form, when each company was incorporated, the amount of capital estimated to be required for each undertaking, the amount authorized to be raised on the 31st of December, the amount raised to that time :—

Railway company.	Date of incorporation.	Capital estimated to be required for each undertaking.	Amount authorized.	Am't rais'd in England to 31st Dec. 1859.	Am't rais'd in India up to latest advices.
East Indian*	Aug. 1, 1849	£19,000,000	.....	.....	.....
Main Line		.....	£12,000,000	£11,615,344	£235.911
Jubbulpore		.....	2,000,000	1,757,300	3,302
Madras	Jan. 14, 1853	8,500,000	.....	.....	.....
Main Line		.....	4,000,000	3,332,577	.....
Bellary		.....	1,000,000	555,850	.....
Great Indian Peninsula	Aug. 1, '49	12,000,000	8,333,300	5,297,747	342,590
Scinde	July 2, 1855	1,400.000	1,000,000	894,340	20,447
Punjab†	Aug. 23, 1855	4,000,000	1,500,000	506,945	.....
Indus Steam Flot	1857	280,000	250,000	249,140	.....
Bombay, Baroda, and Central India	July 2, 1855	2,500,000	2,300,000	1,485,923	18,042
Eastern Bengal‡	Aug. 1, 1857	2,500,000	1,000,000	424,773	2,685
Calcutta & South East.	July 8, '57	250,000	250,000	128,505	778
Great South'n of India.	Aug. 2, '58	2,000,000	500,000	195,000	1,221
Total		£32,430,000	£34,133,300	£26,453,741	£625,971

Annexed is a statement of the objects of each company and the total length of line :—

East India Railway Company—the construction and working of lines of railway from Calcutta to Delhi, and from Allahabad to Jubbulpore; total distance, 1,338 miles. Madras Railway—the construction and working of a railway from Madras to the Western Coast at Beypore, with branches to Bangalore and the

* Including the Jubbulpore line.
† Including the contemplated line from Delhi to Lahore.
‡ Including proposed extensions.

Neilgherries; also of a line from Madras via Bellary, to join the line from Bombay; total distance, 850. Great Indian Peninsula Railway—the construction and working of the following railways, all of which terminate at Bombay, viz.: from Bombay via Callian to Jubbulpore, to meet the East Indian line from Allahabad, with branches to Mahim and Nagpore; and from Callian via Poonah and Sholapore to Moodgul in the Deccan, to meet the line via Bellary from Madras; total distance, 1,266 miles. Bombay, Baroda, and Central Indian Railway—the construction and working of a line of railway from Bombay via Surat and Baroda to Ahmedabad; total distance 310 miles. Scinde Railway Company—Scinde Railway—the construction and working of a line of railway in Scinde, from Kurrachee to the River Indus at Kotree; total distance, 114 miles. Punjab Railway—the construction and working of lines of railway in the Punjab, from Moulton and Lahore to Umritser, and thence to Delhi; total distance, 490 miles. Indus Steam Flotilla—the navigation of the Indus by means of steam vessels between Kotree and Moultan, to be worked in connection with the railways. Eastern Bengal Railway Company—the construction and working of a line of railway from Calcutta to Kooshtee on the Ganges, with extensions to Serajgunge and Dacca; total distance, about 220 miles. Calcutta and Southeastern Railway—the construction and working of a line of railway from Calcutta to the port of Mutlah; total distance, 29 miles. Great Southern of India Railway—the construction and working of a railway from Negapatam to Trichinopoly, with branches to Salem and Tuticorin; total distance, 300 miles.

THE SIMPLON TO BE TUNNELED.

We read in the *New Italy*, a French journal published at Milan, the following notice of a grand enterprise:—The age is one of gigantic undertakings. The Suez Canal will be completed; the tunneling of Mount Cenis is already done; that of the Simplon is about to be accomplished by the Railroad Company of Italy. Geneva will be the head of the line, and its point of connection with the French roads. Thence it will go to Thonon, follow entirely the shore of Lake Leman, next that of the Rhone, in the Valais, as far as Brigg, passing by Martigny and Sion. After leaving Brigg, it will incline towards the south, and pass under the Simplon, when, having reached Italian soil, it will skirt Assola, the Lago Maggoire, and finally gain Arona.

MICHIGAN CENTRAL RAILROAD.

The following return shows the operations of this road for six years past. In each year there has been a reduction since, 1856, showing the general course of the subsidence of business:—

Year.	Total No. of passengers.	No. of tons of freight moved.	Gross earnings.	Working* expenses.	Net earnings.
1855.....	503,774	241,825	$2,215,283	$1,335,627	$879,656
1856.....	550,780	231,293	2,800,442	1,571,817	1,228,624
1857.....	593,630	328,939	3,104,602	2,083,100	1,021,403
1858.....	461,956½	276,294	2,428,757	1,531,218	897,539
1859.....	361,527	235,123	1,838,129	1,072,732	765,396
1860.....	324,421½	295,276	1,832,944	1,077,483	755,461

* Including taxes.

RAILROAD RECEIPTS FOR JUNE.

	1860.	1859.		
Baltimore and Ohio Railroad.....	$351,936	$300,473	Decrease	$15,563
Washington branch.....	38,393	34,625	"	3,768
N. W. Virginia Central.....	20,108	25,345	"	4,763
Total.....	374,437	350,443	"	23,994
Buffalo, N. Y. & Erie, (Buff. & Corning)	45,033	40,462	"	4,571
Chicago and Rock Island	97,350	70,792	"	26,558
Cleveland and Toledo.....	55,180	53,755	Increase	1,427
Chicago, Burlington, and Quincy.....	163,813	124,382	"	39,431
Chicago and Northwestern.....	48,024	27,851	"	20,173
Cincinnati, Hamilton, and Dayton....	42,086	41,321	"	765
Cleveland and Erie.....	68,639	60,580	"	8,066
Galena and Chicago.....	89,300	110,650	Decrease	21,350
Housatonic.....	28,687	23,507	"	5,180
Hudson River.....	129,996	114,544	Increase	14,552
Illinois Central.....	189,547	145,825	"	43,722
Little Miami.....	84,206	87,458	Decrease	3,251
Macon and Western..... ...	25,359	22,654	Increase	2,705
Michigan Central.....	123,095	119,770	"	3,325
Michigan Southern and Northern Ind..	138,344	122,795	"	15,549
Milwaukee and Mississippi.....	49,166	52,382	Decrease	3,216
New York Central.....	510,651	447,813	Increase	62,838
New York and Harlem	93,377	89,289	"	4,088
New York and New Haven.....	76,996	73,608	"	3,388
Pittsburg, Fort Wayne, and Chicago..	163,997	134,941	"	29,056
St. Louis, Alton, and Chicago.....	76,699	56,463	"	20,236
Toledo and Wabash.....	67,428	58,357	"	9,071

LONG DOCK TUNNEL, N. J.

As the "great tunnel" approaches completion, information in relation to it is naturally sought after. Its length is 4,300 feet, through solid rock, and of a width and height sufficient to pass two trains of cars. The entire length of the railroad from the end of the pier to the junction west of Bergen Hill is 15,000 feet or 2.88 miles. This road is being constructed for the use of the New York and Erie Company, and the Long Dock will henceforth be the New York terminus of the Great Western Avenue. The cost of the work to the 1st of March, 1860, has been $1,488,121, which sum is accounted for as follows :—

Tunnel and approaches.....	$749,611
Road from pier to tunnel.....	210,159
Dock and piers.....	143,659
Engineering, etc.....	64,374
Lands, after deducting mortgages.....	320,318

Which amounts have been secured from the following names :—

Share capital.....	$458,500
Mortgage bonds.....	126,000
Advances by the New York and Erie Co., and the Hoboken Land Improvement Co.....	803,681

The total capital authorized is $800,000 in 8,000 shares, and the full amount provided under the mortgage is $500,000. Besides the above works, the Long Dock Company owns 1,580 lots of ground not required for its purpose, and one quarter interest in 1,024 lots in addition thereto, with a river front of 1,800 feet. The Erie Company will require only about 450 lots for passenger, car, wood, freight and engine houses, machine shops, etc. The limited space for such a purpose in Jersey City has been long felt by the company for whose use this work is intended.

ST. MARY'S CANAL.

The aggregate tonnage for the year 1859 passed the canal was 352,642.

ARTICLES PASSING THROUGH ST. MARY'S FALLS SHIP CANAL IN 1859.

Iron ore.....tons	65,769	Coal.....	8,883
Iron bars.....	5,503	Nails.....kegs	3,632
Iron blooms.....	526	Merchandise.....tons	10,134
Flour.....bbls.	39,459	Lime .....bbls.	4,355
Wheat.....bush.	74	Lumber and shingles.....M.	7,749
Coarse grain.....	71,738	Lath.....bundles	2,538
Ground feed.....tons	1,104	Window glass.....bxs.	970
Beef .....bbls.	4,762	Hay.....tons	824
Pork.....	5,902	Horses and mules.....head	127
Bacon..	345	Cattle.....	2,031
Lard.....	611	Sheep.....	1,071
Butter .....lbs.	343,411	Hogs.....	374
Cheese	54,142	Brick.....M.	3,409
Tallow.....	5,650	Furniture.....pcs.	7,623
Candles.....	117,634	Hides.....	1,628
Soap..... boxes and bbls.	2,205	Pelts and furs.....bundles	311
Apples..... .....bbls.	3,785	Machinery.....tons	927
Dried fruit.....lbs.	727,159	Engines and boilers.....	17
Sugar.....	486,020	Wagons and buggies.....	130
Coffee.....bags	1,112	Fish .....bbls.	4,359
Tea.....chests	598	Liquor and beer.....	7,312
Vegetables.....bush.	6,949	Malt.....lbs.	235,712
Salt ....bbls.	2,787	Copper.....tons	7,245
Vinegar.....	300	Copper.....bbls.	60
Tobacco.....lbs.	21,745		
Powder.....tons	345	Total estimated value.	$9,887,404 60

OHIO CANALS.

The following statement shows the receips of the different canals in 1859 and 1860, for the quarter ending May 15th :—

	1859.	1860.
Ohio Canal.....	$17,477 34	$9,926 17
Miami and Erie Canal.....	25,249 48	21,993 57
Muskingum Improvement.....	3,053 17	2,065 01
Walholding Canal.....	63 17	46 34
Hocking Canal.....	2,404 37	3,916 84
Total.....	$49,247 53	$36,947 93

The decrease in tolls for the quarter ending May 16, 1860, as compared with the same period in 1859, is $12,299 60. This result was not unexpected, and was caused by the ravages of the unexampled floods of last spring.

MARINE ENGINES.

The London *Engineer* remarks :—We can remember when it was considered a sure sign of good stokers and engineers if steam was always blowing off at the valves, and the funnel vomiting forth huge volcanoes of "reek," black as Erebus, poisoning the atmosphere, and leaving a huge track of cloud for miles behind. If we were to take this as a test of the men being always at their work, *i. e.*, "poking and stoking," there could be but little doubt but they were so.

It was once considered a sure sign of a ship being a good sailer, if she pushed

along in front of her a huge mountain of water, foaming and surging like the sea in hurricane. This was called "carrying a bone in her teeth;" and most truly it was a bone, with "very little meat on it," as far as the profit of the owner went, and considering his pocket instead of his stomach.

Our engineers and stokers now, however, under the present system, and assisted by a little of that valuable, though rather scarce, commodity, common sense, are beginning to find that huge volcanoes of smoke pouring from the funnel, and clouds of steam flying from the valves, mean *coal;* and that the abuse of both in such a manner is not so satisfactory as the proper use of them—one in the furnaces, to make steam; and the other in the cylinders, to propel the ship.

Some twenty-five or thirty years since a young, and then comparatively unknown, gentleman, by the use of a little of that before-mentioned commodity—common sense—carried out practically by the aid of numerous and long continued experiments, proved that the "bone in the teeth" was all wrong, and that in fact our ships had been steaming and sailing "wrong end first." This for a long time was not believed; but our far-seeing cousins on the other side of the Atlantic soon found out the truth of his researches, and the advantages arising from their practical application, by adopting the principle of construction he advocated; and in no case has its success and truth been more fully proved than in the celebrated yacht America, which "took the shine" out of our most famous clippers, which were built on the old plan; and it is worthy of remark that the only vessel at all able to compete with her was a small vessel half her size, constructed on the same plan, by the originator of it; and it is now evident that, from the adoption of this principle, our steamers have risen in speed from 10 to 12, 15, 18, and are now expected to do 20 miles an hour!

We find that equal progress has been made in the construction of engines and boilers, and that results are being daily and regularly attained in the working of such engines in the merchant service, as show that the same, and, in some cases, a greater amount of work, can be done by the use of half the quantity of coal. For instance, we find ships of 1,600 tons displacement, with engines giving a power of 1,000 indicated horses, making regular voyages of over 3,000 miles, at a speed of 10 knots to 11 knots, with the consumption of 300 tons of coal; and that the regular working of these vessels is accomplished with the combustion of 3 lbs. of coal per indicated horse power per hour.

THE FLORIDA RAILWAY

A connection of the Atlantic Ocean and Gulf of Mexico, by the above railway, has been made. The event has been officially announced in a letter from Mr. R. H. Cole, the superintendent of the road, dated Fernandina, June 16th, 1860, in which he states: "I have the pleasure to inform you that our track reached the waters of the Gulf on the 13th inst." The road extends from Fernandina to Florida Keys, and is 154 miles in length. The maximum grade is twenty feet to the mile, and the rail laid down weighs sixty pounds to the yard. The whole cost of construction has been about $3,500,000.

STATISTICS OF AGRICULTURE, &c.

AGRICULTURE IN FRANCE.

A writer, describing the great agricultural exhibition in Paris, remarks that, in surveying the magnificent collection of products of the soil and of materials useful in agriculture, we meet continued exemplifications of the advantage of a sunny and yet temperate clime. There are 2,500,000 acres of gardens and orchards in France, and specimens of their delicious fruit crops are here exhibited. We import largely from France, apples, pears, and cherries, with medlars and quinces, and innumerable other fruits, many dried or preserved. In the south of France are peach orchards of a thousand or two of trees each; in the vicinity of Toulouse thousands of peach trees are cultivated in the open ground, the summer temperature being so high that wall fruit would be roasted as it hung. Olive plantations abound, the most luxuriant being between Aix and Nice, there being a total of more than 300,000 acres of this evergreen shrub, of which the fruit is plucked green, or, when ripe, crushed for oil. There are a million and a quarter acres of chestnut plantations, producing food for the peasantry. The production of silk is no small branch of rural industry; the mulberry trees are planted in rows along roads, in corners, and around fields, the trees being treated as pollards, and the leaves cut or stripped off for feeding the silkworms early in the summer—a hundred weight of leaves producing six or ten pounds of raw silk. More than 100,000 acres of land support mulberries for silk, yielding between 20,000,000 to 30,000,000 pounds of cocoons. Hemp, flax, and hops are very largely cultivated in France. The growth of the beet root for sugar is very extensive, and it appears to be an unavailable crop in England, owing to the unsuitability of our climate for developing the full saccharine properties of the plant. There are in France upwards of 300 beet root sugar factories, producing more than 40,000 tons annually, while the non-crystalized matter extracted from lees and dregs furnishes enormous quantities of sweetening matter to breweries, and also to the wine doctors of Cette and the Gironde. The manufacture inaugurated by NAPOLEON has, indeed, become an important national industry. Even in 1827 there were but 89 factories. Near Lille and Valenciennes, and some other localities, the yield of sugar is about 16 to 25 tons per acre.

Tobacco in Alsace and in Picardy, where the climate is similar to ours, is a very profitable crop, although a monopoly of the government, and under very stringent regulations as to culture. About 20,000 acres are grown in France, often returning £50 per acre, though the quality of produce is inferior to that of tobacco grown by private cultivators abroad. The management demands much labor and skillful treatment, being more like gardening than farming; still, there is nothing to prevent the crop answering extremely well in England.

Of course the wines of France figure in its Palace of Industry, there being samples from the vinyards of Champagne and Burgundy, and from those of far greater extent in Languedoc, Provence, and the celebrated vinyards of the Garonne. The 5,000,000 acres of vinyards yield a produce worth £30,000,000 sterling, a tenth or twelfth of which is exported. There is, perhaps, little fear

of French wines affecting the ruin of Burton-upon-Trent and the disuse of malting and barley-growing; still we hope to benefit by these brisk, enlivening beverages, and by the enlarged demand thus created to promote the welfare of large classes of the French population engaged in their production.

The number of cattle annually slaughtered in France is reckoned at 4,000,000, averaging about sixteen imperial stone each carcass, or much less than half the average weight of English, and the proportion of cattle per acre is far below ours. The total production of beef from such an extensive country is comparatively small indeed. In fact, 2,000,000 oxen are engaged in labor, so that a large portion of the animals butchered consist of old beasts and of calves.

FLAX COTTON.

The Davenport *Gazette* announces that the subject of raising flax in Iowa, for the manufacture of cheap clothing fabrics, is going to have the attention of the farmers of that State—that Col. WILLIAM DUANE WILSON, Secretary of the Farmers' College, is about setting out on a lecturing tour, and will take with him specimens of calicoes and jeans manufactured from flax cotton. The *Gazette* says:—

These goods are finished with a brighter color than those printed upon pure cotton cloth, besides promising greater durability, on account of the superior toughness of the fiber of flax. Satinets are also manufactured with flax filling, the warp being cotton. Also yarns half cotton and half flax—and three-quarters wool and one-quarter flax—said to be finer, softer, and more durable than though of all wool. These yarns and satinets we have not seen. We intend to *wear* the first pair of flax stockings we meet with, and then to speak from experience. But one thing is demonstrated. All sorts of common cloths and clothing can be made from flax which are now made from cotton. The goods also are as cheap as cotton goods and handsomer; and the raw material can be raised in any Northern State.

When the Chevalier CLAUSSEN, in 1851, announced to the world that flax could be manufactured into a cotton—not distinguishable by old cotton growers from the cotton of the South—and spun and wove upon ordinary cotton machinery—the world was incredulous. But it is of no use to doubt when one has *seen the goods.*

For a hundred years experiments have been going on in the cottonizing of flax. It was not, however, till the spring of 1857 that the first bale of tow was prepared by the new process at Niagara Falls, New York, by Mr. ALLEN. In the summer of 1858 the flax cotton was first used in manufacturing with cotton and wool, at East Greenwich, Rhode Island. In the spring of 1859 the machinery was perfected at Watertown, Massachusetts, near Boston. Other mills in different parts of New England are now adopting this machinery, and it is to be introduced into the West, as soon as it can be constructed. As soon as the farmers of the West are awake to this great work of raising their own clothing by the cultivation of flax, the machinery for turning it into cotton will be at their doors. After that process is gone through with—as we have said before—the machinery of an ordinary cotton mill will turn it into cloth.

The difficulties in reducing flax to cotton—which it has taken a century of experimenting to overcome—grow out of the difference between the fiber of native cotton and that of native flax. The one is flat like a ribbon, the other is tubular; the one is the covering of a seed, the other of a stalk; the one coils up on being torn from its position, the other grows upon its stalk in layers overlapping one another, giving the appearance of one continuous thread. These layers are stuck together by a compound (glumen) which requires both a mechanical and chemical process to remove it, and renders the fiber stiff and inflexible. The old process for removing this glumen was in 36 parts, occupying

six weeks' time, besides the rotting, &c., and cost more than the whole process of cottonizing under the new plan. The manufacture of cotton has increased immensely in the United States from the difficulty in subduing flax—a difficulty now happily surmounted. Henceforth flax will be grown and manufactured on as large a scale as cotton has been. The present demand for cotton is from 25,000.000 to 30.000,000 bales, while our actual supply is but 6,000,000. The flax of Iowa and other Northern States will, in a few years, we are confident, make up this great deficit and immensely promote human comfort, health, and happiness.

Flax requires only an equable temperature, exempt from severe drought on the one hand, and excessive moisture on the other—and for soil, a dry, deep loam, with a clay sub-soil. New grounds produce a strong crop. The land should be well drained, though it will bear a good deal of moisture. Says a writer:—"Plough in the autumn, immediately after harvest, across the ridges—leave the land in this state till early spring; then plough again, harrow, and sow. Sow two bushels of seed to the acre. After sowing, cover with a seed-harrow, going twice over it—once up and down, and once crosswise. Finish with the roller. The earlier the seed is sown, the more slow and steady the growth, and the finer, in consequence, the fiber."

AGRICULTURE IN GEORGIA—INCREASE IN THE USE OF FERTILIZERS.

Last year the Central Railroad transported four millions of pounds of the various kinds of fertilizers over its line for the twelve months ending on the 30th November. The quantity transported over the Central Railroad from December 1st, 1859, to June 1st, 1860, was in round numbers fifteen-and-a-half million of pounds! This company has contributed very largely to the extensive application of these agents by a low rate of freight, the charges for transportation barely covering the cost. The profit to it, however, is secured as the increased amount of cotton raised gives them an increased quantity of a more profitable article to transport. So that while the low rate of freight is liberal to the producer it is also profitable to the company.

The inferences to be drawn from this change in the system of agriculture, indicate a disposition on the part of planters to discard the prejudices which have heretofore commonly existed against the aid of science in promoting agriculture. It is becoming apparent that it is cheaper and easier to renew old lands than to emigrate to new and unsettled countries, breaking ties of friendship and relationship, and exposing wife, children, and negroes to strange diseases. The result will be to stop the tide which has been flowing westward, and people and cultivate the red hills which have so long been left to waste.

The following is a comparison between the quantity of fertilizers transported by the Central Railroad during six months of this year, and the twelve months of last year, in the following table; the six months beginning with 1st December, 1859, and ending 1st June, 1860, the twelve months being the year immediately preceding:—

	Six months.	Twelve months.
Montgomery and West Point Railroad.....pounds	67,070	14,140
Milledgeville Railroad	1,821,110	401,680
Southwestern Railroad	3,149,420	439,760
Macon Railroad	1,849,880	175,930
Central Railroad	2,646,270	1,514,120
Milledgeville and Eatonton Railroad	547,880	669,780
Augusta and Savannah Railroad	4,297,670	207,350
Georgia Railroad	276,070	289,820
Macon and Western Railroad	1,198,750	147,770
Total	15,353,620	3,854,350

STATISTICS OF POPULATION, &c.

POPULATION OF GEORGIA IN 1859.

The following is a table containing the abstract of the census returns of one hundred and thirty counties in the State for 1859, (two counties having failed to make returns,) by which it will be seen that the total population in these counties is 1,014,418, viz., 571,534 whites, 439,592 slaves, and 3,292 free persons of color. The same counties in 1852 gave 919,076 as a total population, showing an increase since 1852 of 80,256. The increase of slaves has been 45,487, and of whites 31,477. If the remaining two counties increase in like ratio, the whole population of the State, by the census returns, will be about 1,024,000. There are returned 299 deaf and dumb, 400 insane, and 442 idiots. There are also returned 81,719 males between the ages of 6 and 16, 73,480 females between 6 and 15; 62,109 males and 59,895 females under 6 years of age; 131,592 males over 16 years of age, and 138,323 females over 15 years of age:

Counties.	Whites.	Slaves.	Free colored.	Total.	Deaf & dumb.	Insane.	Idiotic.
Appling	3,280	681	1	3,912	3	.	1
Baker	1,653	2,890	2	4,545	2	.	1
Baldwin	3,720	4,562	94	8,376	5	216	28
Banks	2,961	965	3	3,929	.	1	3
Berrien	3,080	393	..	3,473	.	1	3
Bibb	8,949	6,003	37	14,989	.	1	3
Brooks	3,128	3,388	3	6,519	2	.	2
Bryan	1,629	2,133	1	3,763	.	.	3
Bulloch	3,427	2,117	1	5,545	.	2	2
Burke	4,930	11,509	90	16,529	5	2	11
Butts	....	....	..	....	.	.	.
Calhoun	2,040	2,400	8	4,448	.	1	2
Camden	1,083	4,194	12	5,289	.	.	1
Campbell	6,624	1,998	7	8,329	1	2	4
Carroll	9,510	1,736	7	11,273	3	.	17
Cass	10,830	4,841	11	15,502	2	3	9
Catoosa	4,028	728	1	4,757	.	1	1
Chatham	15,972	13,175	724	29,871	5	4	3
Chattahoochee	3,298	2,796	15	6,109	3	1	1
Chattooga	4,921	1,958	5	6,874	1	2	6
Cherokee	9,363	1,225	23	10,611	1	4	7
Charlton	1,313	371	..	1,684	.	.	.
Clarke	5,410	5,540	30	10,980	2	3	8
Clay	2,278	1,991	1	4,270	.	.	1
Clayton	3,302	1,243	5	4,550	2	4	4
Clinch	2,347	457	4	2,908	1	2	5
Cobb	11,004	3,490	11	14,656	2	1	6
Coffee	2,063	612	14	2,709	1	.	1
Columbia	3,731	8,300	66	12,097	.	.	1
Colquitt	1,163	103	10	1,276	1	.	.
Coweta	6,180	6,438	10	12,628	9	1	6
Crawford	3,593	4,033	14	7,504	1	1	2
Dade	2,824	243	..	3,067	1	.	1
Dawson	3,671	308	4	3,983	4	1	1
Decatur	5,749	5,515	2	11,266	1	2	5
De Kalb	6,278	2,126	14	8,418	5	4	15
Dooly	3,364	3,619	4	7,087	4	1	3
Dougherty	2,351	5,496	5	7,852	5	.	.
Early	2,122	3,661	..	5,783	.	.	.

Counties.	Whites.	Slaves.	Free colored.	Total.	Deaf & dumb.	Insane.	Idiotic.
Echols	982	262	..	1,244	.	.	.
Effingham	2,496	2,096	14	4,606	1	1	4
Elbert	4,916	5,755	23	10,704	1	3	3
Emanuel	3,410	1,161	17	4,598	.	3	5
Fannin	4,476	130	..	4,606	2	2	7
Fayette	5,046	2,165	4	7,225	1	4	9
Floyd	9,157	5,518	26	14,701	41	1	5
Forsyth	6,824	888	6	7,718	.	.	3
Franklin	5,859	1,208	40	7,107	3	.	8
Fulton	10,969	4,024	18	15,011	13	2	1
Gilmer	6,018	172	5	6,195	4	.	7
Glascock	1,564	752	17	2,333	.	.	2
Glynn	1,046	2,958	5	4 009	.	.	1
Greene	4,075	7,672	37	11,784	.	1	4
Gordon	7,906	2,024	23	9,953	3	.	11
Gwinnett	10,671	2,531	21	13,223	3	1	9
Habersham	5,092	825	35	5,952	1	.	5
Hall	8,464	1,330	3	9,797	4	.	6
Hancock	3,979	8,014	56	12,049	3	3	3
Haralson	2,310	177	..	2,487	.	6	.
Harris	6,093	7,527	28	13,648	6	5	4
Hart	3,718	1,422	14	5,144	1	2	1
Heard	4,759	2,574	10	7,333	5	3	4
Henry	6,414	4,305	13	10,732	2	1	15
Houston	5,437	10,672	24	16,133	2	2	3
Irwin	1,420	265	..	1,685	1	.	2
Jackson	7,327	3,191	22	10,540	4	6	6
Jasper	3,858	7,251	20	11,129	1	2	3
Jefferson	4,052	6,289	28	10,369	2	3	3
Johnson	1,879	697	..	2,816	1	.	4
Jones	2,751	5,826	32	8,609	4	1	8
Laurens	3,442	3,238	4	6,684	4	.	6
Lee	2,089	4,587	3	6,679	2	2	2
Liberty	2,377	6,029	2	8,408	1	1	.
Lincoln	1,572	3,723	15	5,310	1	.	4
Lowndes	2,191	1,948	1	4,140	.	1	1
Lumpkin	4,975	504	11	5,490	4	1	5
Macon	3,658	4,570	5	8,233	.	1	1
Madison	3,792	2,096	3	5,891	.	.	1
Marion	3,723	3,459	9	7,191	2	.	2
McIntosh	1,813	4,224	46	5,583	3	.	3
Meriwether	6,640	8,377	6	15,023	3	3	4
Miller	1,297	554	5	1,856	2	.	1
Milton	3,901	574	1	4,476	1	.	2
Mitchell	1,870	1,015	1	2,886	.	.	2
Monroe	5,835	9,960	17	16,812	1	.	6
Montgomery	....	....	..	....	.	.	.
Morgan	2,893	6,779	7	9,679	1	.	.
Murray	5,250	1,420	1	6,671	.	1	1
Muscogee	8,575	6,300	197	15,072	.	.	2
Newton	7,966	6,234	41	14,241	2	3	4
Oglethorpe	4,187	7,679	4	11,820	3	2	5
Paulding	5,694	478	6	6,178	.	1	1
Pickens	2,799	246	..	5,045	.	1	.
Pierce	1,411	166	1	1,578	.	1	1
Pike	5,210	4,502	39	9,751	2	2	8
Polk	3,848	2,431	..	6,279	7	1	2
Pulaski	4,045	3,618	50	7,713	4	1	2
Putnam	2,942	7,365	53	10,360	2	3	2
Quitman	1,424	1,457	2	2,883	2	2	3
Rabun	2,843	221	..	3,064	.	6	1
Randolph	4,873	3,720	...	8,573	.	.	.
Richmond	11,715	8,109	346	20,170	8	3	6

Counties.	Whites.	Slaves.	Free colored.	Total.	Deaf & dumb.	Insane.	Idiotic.
Schley	2,209	2,384	12	4,555	2	.	2
Scriven	3,568	4,310	11	7,884	4	1	.
Spalding	5,214	3,554	68	8,836	2	.	3
Stewart	5,857	7,869	1	13,750	.	.	3
Sumter	6,141	6,021	6	12,168	3	1	5
Talbot	5,280	8,467	26	13,816	.	3	4
Taliaferro	1,841	2,897	71	4,809	4	2	6
Tattnal	2,324	1,085	2	3,411	.	1	2
Taylor	3,473	2,314	1	5,788	6	4	4
Terrell	3,062	2,501	3	5,566	1	.	4
Telfair	1,878	848	2	2,728	.	.	1
Thomas	5,072	6,690	47	11,809	3	1	2
Towns	2,293	103	2	2,398	1	1	4
Troup	6,935	7,898	49	14,882	2	11	5
Twiggs	2,750	5,039	80	7,869	1	1	.
Union	3,955	124	5	4,084	.	1	.
Upson	5,133	5,035	4	10,172	.	3	4
Walker	9,333	1,383	10	10,726	2	2	2
Walton	6,855	4,514	13	10,882	3	2	9
Ware	1,749	422	2	2,173	1	.	.
Warren	4,229	5,255	92	9,676	.	2	5
Washington	5,506	5,941	69	11,516	3	6	8
Wayne	1,635	721	29	2,384	.	.	5
Webster	2,534	2,049	15	4,588	.	1	.
White	2,881	254	5	3,090	3	.	3
Wilcox	1,532	387	2	1,921	.	.	.
Wilkes	3,362	7,120	28	10,510	1	1	7
Wilkinson	5,340	3,718	12	9,070	1	2	4
Whitfield	8,047	1,701	..	9,748	9	2	15
Worth	1,720	532	10	2,262	1	.	.
Total	571,534	439,592	3,292	1,014,418	299	400	442

EMIGRATION AND PAUPERISM.

The effect of emigration in reducing pauperism in England is striking in the following tables. The hope may be entertained that the people are no longer paupers when they arrive here. It appears that during the last seventeen years 3,596,500 emigrants have quitted the United Kingdom, or, on an average, 211,564 annually. The maximum emigration in any one year was reached in 1852, and the minimum in 1843; the totals being 368,764 and 57,212 respectively. Last year's return embraces a total of 120,432 emigrants, a number considerably below the average, but slightly in excess of 1858. The great bulk of the emigration has been to the United States, as will be seen by the following table, which illustrates the destination of every 100 emigrants:—

Year.	British America.	United States.	Australia.	Miscellaneous.	Year.	British America.	United States.	Australia.	Miscellaneous.
1843	41	49	7	3	1852	9	66	24	1
1844	32	62	3	3	1853	10	70	19	1
1845	34	62	1	3	1854	14	60	25	1
1846	34	63	2	1	1855	10	59	29	2
1847	42	55	2	1	1856	9	63	26	2
1848	13	76	9	2	1857	10	60	29	1
1849	14	73	11	2	1858	8	52	35	5
1850	12	79	6	3	1859	5	58	27	10
1851	13	80	6	1					

Political and family ties, and the comparative cheapness of land, have no doubt induced the extraordinary tendency in favor of the United States; but it

cannot but be a matter of regret to see Canada at such a low ebb in the emigrant market. Australia (which the foregoing analysis includes also New Zealand) has, it will be observed, succeeded in holding its own since the gold discoveries in 1852. It will be interesting to note the effects of the exodus between 3,000,000 and 4.000.000 persons on the home labor market; and, judging from the amount of pauperism, the results have been in the highest degree beneficial. The great bulk of the emigrants have been Irish, and pauperism has almost vanished from the Emerald Isle. Thus, the total number of paupers of all classes in receipt of relief in each year has been as follows, (in England and Ireland the returns are made in January, and in Scotland in May) :—

Year.	England.	Scotland.	Ireland.	Year.	England.	Scotland.	Ireland.
1849.	934,110	82,857	620,747	1855.....	851,369	79,887	86,819
1850.....	920,543	79,031	307,970	1856.....	877,467	79,978	78,033
1851.....	860,893	76,906	209,180	1857.....	843,806	79,217	56,094
1852.....	834,424	75,111	171,418	1858... ...	908,186	79,199	50,582
1853.....	798,822	75,437	141,822	1859.....	860,170	78,501	44,866
1854.....	818,337	78,929	106,802	1860.....	851,020	.....	44,929

The total for the three kingdoms, which thus stood at 1,637,223 in 1849, had been reduced in 1859 to 983,537—a fact certainly of some social significance.

STATISTICS OF MARRIAGE.

According to the official returns of the last census of England and Wales, there appeared to be a determinate inequality in the relative proportion of the sexes—the total number of females of all ages, as compared with that of males, being as 53 to 47. This excess of females is not due to a primary inequality of births, but to the number of males constantly resident in or emigrating to foreign lands, and to the greater general mortality among them, resulting from casualties incident to their pursuits, to travel, and to war, from which women are in a great measure exempt. On investigation, however, of the distribution of the sexes, according to those proportions, into married and single, a remarkable diversity appears in the respective results, not so easily or satisfactorily accounted for, since the number of spinsters exceeds that of bachelors much more than might have been inferred from the respective proportions of the sexes. Between the ages of 20 and 40, the married women of England and Wales are to the spinsters and widows as 57 to 43, or, in round numbers, as 4 to 3; while the married men of corresponding ages are to the bachelors and widowers as 70 to 30! This surprising disproportion indicates an unaccountable diversity in the liabilities or disposition to celibacy in the two sexes.

In the present advanced state of science, it has been determined that no event is fortuitous, but may be referred to some definite antecedents, and be subjected to valuation. Every possible contingency of life is susceptible of calculation, so that the probabilities for or against its occurrence may be represented in arithmetical numbers, or estimated in current coin of the realm. Though no exact data exist for determining the absolute chances of marriage for each person, yet they may be approximately indicated, and we have the pleasure of presenting to our fair readers a table showing the probabilities in favor of marriage at different ages, for the various conditions of life, calculated on the same scientific principles as ordinary tables for life assurance, from the returns of the registrar general, the distinguished professional gentleman, in whose accuracy every confidence may be reposed :—

PROBABILITIES OF MARRIAGES AT GIVEN AGES FOR ALL CONDITIONS OF LIFE, COMPUTED FROM THE REGISTRAR GENERAL'S REPORT FOR 1857.

Age.	Bachelors.	Spinsters.	Widowers.	Widows.
20.....	10 to 19	10 to 18	10 to 387	10 to 194
25.....	1 to 3	1 to 5	1 to 9	1 to 6
30.....	1 to 10	1 to 15	1 to 7	1 to 5
35.....	1 to 27	1 to 35	1 to 6	1 to 6
40.....	1 to 64	1 to 73	1 to 6	1 to 6
45.....	1 to 155	1 to 169	1 to 8	1 to 9
50.....	1 to 346	1 to 442	1 to 10	1 to 14
55.....	1 to 826	1 to 1292	1 to 15	1 to 28
60.....	1 to 2820	1 to 4283	1 to 22	1 to 47

From this it will be observed that at twenty the probabilities of marriage for a spinsters, while slightly exceeding those of a bachelor of the same age, are infinitely greater than those of the widowed of either sex; or in other words, that the proportion of widowed at that age is much less than that of the unmarried. After 20 the probabilities both of spinster and bachelor continuously decrease; those of the bachelor, however, being always greater at all after ages, while those of the widowed of both sexes as rapidly increased up to 35—the widowers always retaining the advance. At 35 the chances of marriage for the widow, as compared with those of the spinster, are as 7 to 1; that is, that 7 may be wagered to 1 on the widow marrying first—a rather remarkable fact, though not opposed to experience; but whether that number represents the greater attractiveness of widows at that age, or their greater desire of marriage, we will not rashly venture to decide. At 60, the probabilities are for the widower 128 times better than that of the old bachelor; and those of the widow 95 times greater than of the spinster, though only half the probabilities of the widower. The numbers below the ages of 20 and above 60 have been rejected as too insignificant to be estimated. Seeing from this table, how rapid the chances of celibacy increase after 20, and how quickly the unwise habit becomes confirmed, let those who are discreet "gather their roses while they may!"

POPULATION OF TURKEY.

A contemporary, in speaking of the proposed interference of Russia in behalf of the Christian population of Turkey, says that "the Christians are thinly scattered among a warlike people," (the Turks,) who have not forgotten their old Tartar instincts of plunder and oppression. Now, so far from the Christians being "thinly scattered," they far outnumber the Mohammedans. The last reliable census of the Ottoman Empire gives Turkey in Europe 6,004,921 Mussulmen and 10,435,079 Christians—nearly two to one of the former. As this question is doubtless one to come again prominently before the world, we have thought it best to give a table containing the population of European Turkey, which may be useful for future reference. We will also state that the whole Ottoman Empire (if we include Egypt, Nubia, Sennaar, Tripoli, Barka, Fez, and Tunis, all of which are claimed to be under the sway of the Sultan) contains about 36,000,000 of inhabitants. The African possessions are little more than nominal dependencies, and so it may be said in regard to some of the Sultan's provinces in Arabia, which, singularly enough, include a portion of Western Africa; but in matters of religion and war Islam knows but one head and one heart. The descendant of Osman, Abdul-Medjid Khan, of Stamboul,

is the earthly leader of every true follower of Mohammed. The total population of European Turkey is 16,440,000, and in the annexed statistics we can see what great interests nominal Christians have there, and why Russia feels so deeply in regard to Turkey in a politico-religious point of view :—

	Mohammedans.	Christians.
Bosnia	953,676	896,324
Servia, Wallachia, Moldavia	3,000	4,070,000
Widdin	503,645	596,355
Silistria	1,018,680	181,320
Adrianople	453,732	996,268
Nisch	477,172	676,828
Uskup	356,228	342,772
Roumelia	647,004	761,996
Yania	253,328	674,672
Salonica	474,464	483,536
Crete	93,112	118,888
Stamboul	629,520	330,480
Archipelago	114,360	305,640
	6,004,921	10,435,079
Total		16,440,000

The total population of Asiatic Turkey is about 16,050,000, of which doubtless more than 10,000,000 are nominal Christians.

MERCANTILE MISCELLANIES.

DIMENSIONS AND CAPACITY OF THE GREAT EASTERN.

The principal dimensions, caliber of the machinery, and general accommodations of this truly colossal specimen of genius, enterprise, and industry, are as follows :—

Length between the perpendiculars	680 feet
Length on the upper deck	692 feet
Breadth from side to side of hull	83 feet
Breadth across the paddle boxes	120 feet
Depth from deck to keel	58 feet
Length of forecastle	140 feet
Height of forecastle	8 feet
Total length of principal saloons	400 feet
Height of saloons on lower deck	13 ft. 8 in.
Number of saloons	5
Height of saloons on upper deck	12 feet
Number of saloons	5
Length of upper saloons	70 feet
Length of lower saloons	60 feet
Number of decks	4
Number of main traverse bulkheads or watertight compartments	12
Do. partial	7
Longitudinal bulkheads running fore and aft at a distance of 35 feet apart for a length of 350 feet	7
Width of space between the two skins of ship	2 feet 10 in.
Thickness of iron plates in keel	1 inch
Do. inner and outer skins	½ inch
Bulkheads	¼ inch
Iron decks	⅜ inch
Plates of iron used in the construction of the hull	30,000
Number rivets used in fastening the plates	3,000,000
Weight of iron used in the construction, about	10,000 tons
Tonnage	22,500 tons
To carry coal and cargo	18,000 tons
Quantity of coal which can be carried for voyages	11,379 tons
Weight of ship, engines, &c., as at its launching	2,000 tons
Immersion of this weight	15 ft. 6 in.
Draught of water, laden	30 feet
" " light	20 feet

Accommodation for passengers, 1st class	800	
" " " 2d class	2,000	
" " " 3d class	1,200	
		4,000
Accommodation for passengers, troops alone		10,000
Number of anchors		18
Weight of anchors, cables, &c		253 tons
PADDLE ENGINES.		
Nominal power		1,000 horses
Number of cylinders		4
Diameter of cylinders		74 inches
Weight of cylinders, each		26 tons
Length of stroke		14 feet
Number of boilers		4
Furnaces for boilers		40
Diameter of paddle wheels		58 feet
SCREW ENGINES.		
Nominal power		1,600 horses
Number of cylinders		4
Weight of cylinders, each		80 tons
Diameter of cylinders		84 inches
Length of stroke		4 feet
Number of boilers		6
Furnaces for boilers		72
Diameter of screw		24 feet
Number of blades to screw		4
Length of screw shaft		160 feet
Weight of screw shaft, about		60 tons

ARCTIC EXPEDITION.

On Saturday, July 7th, the Arctic expedition of Dr. HAYES sailed from the port of Boston. The event excited a great deal of interest, and drew together quite a large crowd on the wharf, while the decks of the vessel were crowded with a large number of distinguished individuals, among whom was Governor N. P BANKS, who has evinced a readiness at all times to advance the progress of the expedition. The vessel and all its outfit were formally presented to Dr. HAYES, and he was assured by the Boston committee of their entire confidence in his integrity, ability, and honesty. Dr. HAYES, in accepting the gift of the vessel, and the honor and trust conferred upon him, made an eloquent speech, during which he was frequently interrupted by expressions of kindly sentiments on the part of gentlemen present; and the doctor took this occasion to introduce the officers and crew to those present, and complimented them on their courage in joing him in his journey.

The following is a list of the officers and crew:—Commander, Dr. ISAAC J. HAYES; astronomer and second in command, AUGUST SONTAG; sailing master, S. P. MCCORMICK; mate, H. W. DODGE; captain's clerk, G. F. KNOOR; assistant astronomer, HENRY G. RADCLIFF; carpenter, GIBSON CARUTHERS; cabin boy, COLEN C. STARR; steward, FRANK L. HARRIS; cook, JOHN WILLIAMS; crew, CHARLES MCCORMICK, WILLIAM MILLER, HARVEY S. HEYWOOD, THOMAS F. BROWNE, JOHN MCDONALD, and THOMAS BOWMAN. The expedition carries no surgeon other than the commander. There will be neither an artist nor a photographist on board, although the vessel has a splendid set of photographic instruments, which will undoubtedly be used by Mr. SONTAG, who is a very good artist.

CREDITOR vs. DEBTOR.

The Boston *Real Estate Register* remarking upon the hazards of business says :—

The reverses which are likely to occur in active business life often bring us into painful pecuniary embarassments, from which it is sometimes almost impossible to extricate ourselves. When a person of naturally good heart. and having a high sense of mercantile honor, becomes thus deeply involved, having a heavy load of debts to which he is entirely unable to respond, he is in a position which none, I think, would envy, and only those possessing great energy of character are able to bear up against it with a proper degree of firmness. I sometimes think that creditors are somewhat harsh and unreasonable in their demands upon their unfortunate debtors. They often by their course of action put them to great and unreasonable expense. and that too without any prospect of benefit to themselves. By doing this they commit a great wrong. It is sometimes done in the hope that the debtor's friends may be induced to come forward to his aid. In pursuing coercive measures under such circumstances and for such a purpose, they to some extent prevent him from doing what every man outside of a prison wall should have the freedom of doing unmolested—that of earning by the sweat of his brow an honest subsistence for himself and family, without being annoyed and harrassed by suits at law against him after he has given up his property to the last cent's worth to his creditors. Every man should, if possible, meet his pecuniary obligations. but how many cases there are where it is entirely impossible for one to do so!

What, then, should be the true policy for the liberal, fair, and high-minded creditor to pursue in a case where the debtor's liabilities are of such great magnitude that there is no reasonable chance of his ever being able to meet them? especially when he cannot use his own name. and of course must content himself to remain in a subordinate position at a moderate salary in the employment of others, where his business talents cannot be brought into full exercise, because he is fettered with debts. It seems to me that when the debtor freely gives up his property even to the last dollar, that there at least he should be legally freed from his indebtedness, and be allowed the privilege of enjoying, as best he may, his poverty without being disturbed and persecuted by unrelenting creditors. I do not believe that creditors have a moral right to take mortgages upon the future of their unfortunate debtors and foreclose them as opportunities may occur. If so, creditors are but the life long masters and the debtors are the chained slaves, and the clankings of their chains must be the music to which in future they must keep step till they arrive at the confines of life, and go beyond the reach of writs and attachments. and pay the one great debt which we sooner or later all must pay—the debt of nature.

RECREATION.

The Hon. EDWARD EVERETT used the following language in a recent speech :

The Americans, as a people—at least the professional and mercantile classes—have too little considered the importance of healthful and generous recreation. They have not learned the lesson contained in the very word which teaches that the worn out man is re-created—made over again—by the seasonable relaxation of the strained faculties. The old world learned this lesson years ago, and found out that as the bow always bent will at last break, so the man, forever on the strain of thought and action, will at last go mad or break down. Thrown upon a new last continent—eager to do the work of twenty centuries in two—the Anglo-American population has over-worked, and is daily over-working itself. From morning to night—from January to December—brain and hands, eyes and fingers. the powers of the mind are spasmodic, merciless activity. There is no lack of a few tasteless and soulless dissipations which are called amusements, but noble, athletic sports, mainly out-door exercise, are too little cultivated in town and country.

MERCANTILE VIGILANCE.

The Philadelphia *Commercial List* makes the following just and well put remarks upon a high commercial quality:—

The present is the child of the past, and the future may be safely inferred from both periods, thus realizing the old maxim, that similar causes will produce like effects throughout all ages. On such bases, the calculations of commerce may be safely built up, requiring only judgment and experience in the architect. The most important element, however, in all trading transactions and speculations that one intended to reach into the time to come, is reliable information, as to prices, the stocks of particular articles on hand, the expected imports or exports, as the case may be, and their effects upon the markets. We were forcibly struck with the value of knowledge of this kind a few mornings ago, on entering the Corn Exchange, where several of our leading merchants evinced great sagacity with regard to the last cereal crops, and the prospects of the present year, not forgetting the probable foreign demand, and the yields of grain in other countries, together with the stocks in bond, and the quotable prices everywhere. Thus all their enterprises are superstructures erected on solid foundations. They are no visionaries. They enter into no negotiations without the most solid and substantial reasons for so doing, and for a series of years, acting upon rational principles, their efforts are usually crowned with success.

"Knowledge is power," saith an old proverb, and if in commerce we would attend to its teachings, losses would be few, and failures rare occurrences. But, unfortunately, there is in this country an inordinate desire to get rich hastily, by some sudden *coup de commerce*, and without consulting the signs of the times or the dictates of experience. Thus the eyes are dazzled, and the mind is bewildered with golden dreams, which are never to be realized in a week, a month, or even a year, but which may yet be the fruits of patient industry and judicious observation, of narrowly watching the proportions of supply and demand, even in their minutest details Similar rules will equally apply to speculators in cotton, sugar, tea, coffee, and other goods of large and inevitable consumption, for it should be remembered that their sale, like that of wheat and corn, is *certain*—but that in purchases and contracts alone may be discovered the true source of advantage—for goods well bought are more than half sold. Prudence and foresight are the surest guides to profit and prosperity. If from good evidence a merchant becomes convinced that a certain article which is in constant demand will soon be scarce, or that any particular crop will be short, the prospect of a future advance is sure. He may, therefore, purchase liberally at moderate rates, with a certainty of sales at an increase. We throw these thoughts rather loosely together, but we are well convinced that they merit consideration. Care, vigilance, dicrimination, anticipated advantages eliminated from simple calculations and common sense principles, and undeviating integrity, are the true and grand elements that ennoble merchants of eminence. We are proud to be enabled to conclude with the remark, that we know many extensive business men in Philadelphia, to whom such attributes may be ascribed as parts of their very nature.

A LOST BANK BILL.

In the year 1740, one of the directors, a very rich man, had occasisn for £30,000, which he was to pay as the price of an estate he had just bought. To facilitate the matter, he carried the sum with him to the bank and obtained for it a bank bill. On his return home he was suddenly called out on particular business. He threw the note carelessly on the chimney, but when he came back a few minutes afterwards to lock it up, it was not to be found. No one had entered the room; he could not, therefore, suspect any person. At last, after much ineffectual search, he was persuaded that it had fallen from the chimney into the fire. The director went to acquaint his colleagues with his misfortune,

and as he was known to be a perfectly honorable man, he was readily believed. It was only about four-and-twenty hours from the time that he had deposited his money; they thought, therefore, that it would be hard to refuse his request for a second bill. He received it, upon giving an obligation to restore the first bill, if it should ever be found, or to pay the money himself, if it should be presented by any stranger.

About thirty years afterwards (the director having long been dead, and his heirs in possession of his fortune,) an unknown person presented the lost bill at the bank, and demanded payment. It was in vain that they mentioned to this person the transaction by which that bill was annulled; he would not listen to it; he maintained that it had come to him from abroad, and insisted upon immediate payment. The note was payable to bearer, and the £30,000 were paid to him. The heirs of the director refused restitution, and the bank was obliged to sustain the loss. It was discovered afterwards that an architect, having purchased the director's house, had taken it down, in order to build another upon the spot, had found the note in a crevice in the chimney, and made his discovery an engine for robbing the bank.

Carelessness equal to that here recorded is not at all uncommon, and gives the bank enormous profits, against which the loss of a mere £30,000 is but a trifle. Bank notes have been known to light pipes, to wrap up snuff, to be used as curl papers, and British tars, mad with rum and prize money, have not unfrequently, in time of war, eaten them as sandwiches between slices of bread and butter. In the forty years between the years 1792 and 1832, there were outstanding notes (presumed to have been lost or destroyed,) amounting to one million three hundred and thirty odd thousand pounds, every shilling of which was clear profit to the banks.

A SILK ESTABLISHMENT.

The following sketch of a silk house at Spitalfields, is taken from the interesting volume by W. Henry Wills, entitled "Old Leaves Gathered from Household Words":—

Along a narrow passage up a dark stair, through a crazy door, into a room not very light, not very large, not in the least splendid; with queer corners and quaint carvings and massive chimney-pieces; with tall cupboards, prim doors, and squat counters with deep dumpy drawers; with desks behind thin rails, with aisles between thick towers of papered-up packages, out of whose ends flash all the colors of the rainbow; where all is as quiet as a play house at day-break, or a church at midnight; where, in truth, there is nobody to make a noise, except one well-dressed man, one attendant porter, and one remarkably fine male cat, admiring, before the fire, the ends of his silky paws; where the door, as we enter, shuts with a deep, dull, muffled sound, that is more startling than a noise; where there is less bustle than at a Quaker's meeting, and less business going on than in a government office. The painfully neat man threads the mazes of the piles, and desks, and cupboards, and counters, to greet us, and to assure us in reply to our apology, that we have *not* made any mistake whatever, and that we are in the silk warehouse we were seeking; a warehouse in which we have previously been informed by one whose word we never before doubted, that there is "turned over" an annual average of £100,000 of good and lawful money of Great Britain.

A BIT OF PARIS GOSSIP.

The following gossip is told by a jeweler of Paris. The reader will please remember that the term "my aunt," is the slang phrase for the pawnbroker. The writer thus relates his experience:—

We (the jewelers) are the victims of people in good positions—married, titled, possessing everything to avert suspicion; and of ladies in the highest social circles. These swindlers of aristocratic circles find it convenient to take from jewelers what money bankers and usurers refuse to give them. They boldly enter our shops, purchase and make us deliver to them many bracelets and many diamonds, which they will return in a few days, (so they say,) if they find nothing to suit with them. You can guess what takes place. The objects we confide to them go from our shop to the pawnbrokers. Time passes away; at first the jeweler hesitates to produce scandal, and he accepts notes for the goods which have been taken almost by force against his consent from the shop. At last the notes fall due; they are protested. What is the next step of our "patrons?" They offer to return the goods! And this is at the end of ten or twelve months, without interest or damages! So that we jewelers become the bankers of fashionable ladies and gentlemen pressed for money. I can instance facts and names for you; M. de —— took $60,000 worth of jewelry from seven or eight jeweler shops in Paris. A twelve month passed away, and nothing was paid; all had been sent to the pawnbrokers. A month ago M. de —— offered to return us the jewels, and hooted at the idea of paying us a sou for them. We threatened to bring him before the police court; he laughed at us. We abandoned all thought of it, fearing the loss of time and money we would be at. Then there is M'me de ——, who took from us an immense quantity of jewels to show to her mother, as she said; but really to carry to her "aunt," and we could not get them back except by aid of the police. Really, we do not know how to protect ourselves against these filibusters of aristocratic circles, who are incomparably more dangerous than common robbers.

"VUELTA ABAJO" AND "VUELTA ARRIBA."

The *Cuban Messenger*, published at Havana, remarks:—As dealers in tobacco and cigars abroad are not generally acquainted with the words *Vuelta Abajo* and *Vuelta Arriba*, by which the different qualities of tobacco are distinguished here, we think it proper to explain that the first means the Western part or *downward* portion, (where the sun goes down,) and the latter means the Eastern part, or where the sun rises. As the best tobacco is cultivated in the district most fertilized by the rivers west from Havana, it is a very general thing for cigar manufacturers to assure that they employ the *Vuelta Abajo* tobacco, even if it is not true.

THE FIRST LARGE SHIP.

The first large ship of war built in England was in the reign of Henry VII. She was named the "Great Henry," and cost £14,000.

BLANKETS.

Blankets took their name from THOMAS BLANKET, who, in 1340, first set up looms for weaving them at Bristol.

THE BOOK TRADE.

1.—*History of the Republic of the United States of America*, as traced in the writings of ALEXANDER HAMILTON and his contemporaries. By JOHN C. HAMILTON. Vol. vi. 8vo., pp. 619. New York: D. Appleton & Co.

This comprises the sixth of these handsome volumes, containing the documentary remains of one of our most illustrious statesmen, ALEXANDER HAMILTON. Great industry is exhibited by the author in collecting the materials of this voluminous work and preparing them for the press, such as the revolutionary correspondence, drafts of official papers, and miscellaneous documents, extending over nearly fifty years, and exhibiting a well digested history of the administration of those pure and great patriots, GEORGE WASHINGTON and JOHN ADAMS, while in the executive chair of the general government. The tract of time extending through these administrations is one of the most interesting in our political annals. Great public measures were then discussed. and the foundations of our national policy in many respects were then laid; for the government was then comparatively in its infancy. It is also true that the paramount records of the circumstances which marked that period have been too much neglected, and the character of the distinguished men who then figured in the public view and performed signal services for their country have been permitted almost to be forgotten. But looking calmly over these records, and the circumstances which marked them, we doubt much if the political scholar or statesman, in his researches after political truth, will not find much that is objectionable, which, if it be not set down in malice, at least bears much of the acrimonious spirit of party. That ALEXANDER HAMILTON was both patriot and statesman—among the first indigenous noble fruits of our republic—and that many of his measures of public policy—now mostly exploded—such as related to the establishment of the financial system of the government, were founded in wisdom, if not the very best that could be devised for the then infant republic, few will hesitate to accord; but that there were other contemporaries who labored as zealously, with as good faith, and with equal success, in the inauguration of those measures which have ended in bestowing on us what we now enjoy, we as fully believe—names equally worthy the amenities of the historian, to the banishment of all illiberal prejudices and petty jealousies.

2.—*Travels, Researches, and Missionary Labors, during an Eighteen Years' Residence in Eastern Africa;* together with journeys to Jagga, Usambara, Ukambani, Shoa, Abessinia, and Khartum, and a coasting voyage from Mombaz to Cape Delgado. By the Rev. Dr. J. LEWIS KRAPF, Secretary of the Christian Institute at Basel, and late Missionary in the service of the Church Missionary Society in Eastern Africa. 12mo., pp. 464. Boston: Ticknor & Fields.

The name of the Rev. Dr. KRAPF has long been before the public in honorable connection with the attempts to introduce civilization and Christianity into the benighted continent of Africa, no less than as a pioneer of important geographical discoveries, and a most successful laborer in the field of Hametic philology. "His earlier missionary labors," says the publishers' notice, "were printed in 1843, and related chiefly to Abessinia and Shoa." The present volume, although also touching upon both, is chiefly confined to the *terra incognita* of our maps, the Eastern Coast, and the equatorial sections of Africa, the land of his boyish aspirations. The appendix gives details of language hitherto but oral, which he and his colleages at Rabbai Mpia have reduced to form and writing, and thus brought within the scope of future missionary efforts for the conversion of the heathen. Whilst Dr. LIVINGSTONE was proceeding from the South towards the coast of Mozambique, Dr. KRAPF and Mr. Rebmann were advancing from the North to the same point. The discoveries of Dr. LIVINGSTONE, no less than

those of Dr. KRAPF, may almost be said to have formed a junction at Cape Delgado. Indeed, the travelers approached each other within five degrees, the small sections of the coast not visited by either, being confined within 10° and 15° southern latitude. The collection towards a history of the literature of Abessinia and the natives of Eastern Africa, has been compiled from the memoranda of Dr. KRAPF and other sources, and suffices in bring together such information on the subject as cannot fail to interest the student of ethnology and linguistic science.

3.—*Autobiographical Recollections.* By the late CHARLES ROBERT LESLIE, R. A. Edited with a prefatory Essay on LESLIE as an artist, and selections from his correspondence. By TOM TAYLOR, Esq. 12mo., pp.363. Boston: Ticknor & Fields.

Mr. LESLIE'S admirers, of whom he possesses many, both in England and United States, will have good reason to thank the publishers for the fit manner in which they have brought forth these recollections of the artist whose happy combination of endowments as an artist, added to the pure morality of his private life, have endeared his memory to so many. In sketching these recollections and correspondence, we have been struck, though a stranger, with the genuine qualities indicated, especially in this correspondence of Mr. LESLIE'S—habitually sincere, affectionate, equable, thoughtful of others, tolerant, loving to dwell on the good rather than the bad about him, his life was indeed a victory, and it would be well if there were more lives that should show so exact a parallel of good attributes in the workman and his works.

4.—*Movement-Cure:* an Exposition of the Swedish Method of Treating Disease by Movement Cure, Embracing the History and Philosophy of this System, with Examples and Directions for their use in various forms of Chronic Disease —being a complete manual of exercises; together with a Summary of the Principles of General Hygiene. By GEORGE H. TAYLOR, M.D. 12mo., cloth, pp. 396. New York: Fowler & Wells.

The Movement Cure as now practiced, was first introduced by Peter Henry Ling, of Sweden. In 1814 the Swedish Government gave it sanction and support, since which time it has been steadily growing in public favor. Dr. Taylor, the author, has given the subject much attention, having visited Sweden for the express purpose of learning the system from its native teachers. The Movement-Cure, as a specialty of medical practice, depends entirely on physiological means for the accomplishment of its purposes. It points out the means of directing the corporeal energies into just those channels in which they are most needed, in order to perfect the balance of the physiological processes. It enables the system to develop and maintain its forces in greater amount, because it employs them naturally and without undue waste. And because it thus limits itself to a realm of facts concerning which there is no question, it has a right to expect the approval of physicians of all the different schools, even of those advocating opposing theories. It requires assent only to the plainest and most obvious facts and inferences of physiology. In the Movement-Cure, all physicians meet on common ground and blend their differences. Those who are tired of drugs, will rejoice at the publication of this work; and although they may not subscribe to all its teachings, will find in it much good sense, practical advice, and a plan which all may adopt, and practice at home.

5.—*The Sand Hills of Jutland.* By HANS CHRISTIAN ANDERSON, author of the "Improvisation," &c. 12mo., pp. 267. Boston: Ticknor & Fields.

Among the many story books we are receiving, it is long since we have persued one so charmingly interesting as are these fanciful sketches of Mr. Anderson's, whether viewed in their moral light, or in the peculiar winning style in which they are written, which, though purely imaginative, a much higher object seems to have been kept in view than is usual in works of this class. Thus while exciting the fancy to the utmost, each tale is characterized by a well defined and useful moral purpose, which cannot but prove beneficial to those for whom they are intended—the youthful reader.

HUNT'S

MERCHANTS' MAGAZINE.

Established July, 1839, by Freeman Hunt.

VOLUME XLIII. SEPTEMBER, 1860. NUMBER III.

CONTENTS OF NO. III., VOL. XLIII.

ARTICLES.

ART. PAGE

I. REVIEW, HISTORICAL AND CRITICAL, OF THE DIFFERENT SYSTEMS OF SOCIAL PHILOSOPHY; OR, INTRODUCTION TO A MORE COMPREHENSIVE SYSTEM. PART VIII. The Intellectual Night or Dark Age of Europe briefly remarked upon, and its Five Distinguishing Features—The Dawn of Modern Science Glanced at—The Commonly Supposed Influence of Lord Bacon on the Cause of Science Critically Considered—His System of Philosophy Critically Examined—Descartes and Leibnitz Briefly Noticed, as the Great Representative Men of France and Germany, and to some extent, of the Age, though less so than Bacon—Distinguishing Characteristics of the Present Age—The necessity of henceforth rendering our Review more strictly Critical, as it has been hitherto more peculiarly Historical, and of adopting the Synthetic instead of the Analytic Method of considering the Sociological Ideas passing under our Review 275

II. VALUATION OF LIFE INSURANCE POLICIES. No. v. By Prof. C. F. McCAY, of Georgia 301

III. FORGERY. By the author of "Commercial Commodities Characterized" 306

IV. OPIUM TRADE OF INDIA. Origin of Trade—Present Amount—Poppy—Process of Manufacture—Dealers—Chinese Purchases—American Captain—Steam Citidels—Gambling Nature—Large Capital—Use of Opium 313

V. FINANCIAL HERESIES. By CHARLES H. CARROLL, Merchant, of Boston 317

JOURNAL OF MERCANTILE LAW.

Delivery of Cotton 322
Marine Insurance—Breach of Warranty in Marine Policy—When only "Deviation" Allowable 324

COMMERCIAL CHRONICLE AND REVIEW.

Business of the Month—Imports—Exports—Wheat—Crops—Large Wheat Deliveries—Corn—Elements of Demand—Export and Prices for July—Cotton and Harvests—Supply too Large—No Speculation—West Sells all its Surplus—No Home Demand—Railroad Securities—Rates of Money—Fall in Value—Specie—Foreign Bills—Specie Shipments—California Bills—United States Mint—Assay-Office—Current of Specie—Bank Reserve—Bank Discounts—Representative Value—The Inflation of Prices—Legislative Enactments 326-333

PAGE

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

British Specie Imports and Exports, six months, to June 30 334
English Customs Duties 335
Banks of the United States, January, 1860 336
City Weekly Bank Returns—Banks of New York, Boston, Philadelphia, New Orleans, Pittsburg, St. Louis, Providence 337
New York City Banks, quarterly statement, June 23, 1860.—New York City Banks 340
Valuation and Taxation in Cincinnati.—Taxable Valuation of Mississippi 342
Failures in London in 1858-59.—Statistics of Poverty 343
Debt of Russia.—Bank Profits.—July Dividends 344

STATISTICS OF TRADE AND COMMERCE.

Wool Trade 345
Sugar and Coffee in Hayti 346
Distribution of the Navy 347
Canada Trade 348
Cuba and Porto Rico 349
Silk 350
Mouths of the Mississippi —Tobacco—Its Growth and Consumption 351
British Exchange of Cotton Goods for Cotton 352
Annual Coffee Circular.—Exports from New Orleans 353
Exports of Charleston, S. C., quarter to June 30, 1860 353
The Cotton Trade.—Stock of Wheat 354
African Laborers.—Canadian Reciprocity 355

NAUTICAL INTELLIGENCE.

The Harbor of New York 356
Ships Building on the Lakes 357
Lake Tides.—Tonnage on the Lakes 358
Disasters on the Lakes —The New Route between the West and England 358
New Lights at Civita Vecchia and Ancona.—Montauk Point Lighthouse, Long Island, N. Y 359
Lighthouse on Merrill Shell Bank, Coast of Mississippi 359
Single Revolving Light in the Gull Stream, England 359

POSTAL DEPARTMENT.

Local Dispatch Posts Suppressed.—The Newspaper Window at the London Post-office 360

JOURNAL OF INSURANCE.

Insurance Dividends 361
New Hampshire Fire Insurance Companies 362

COMMERCIAL REGULATIONS.

Rates of Pilotage in and out of the Mississippi Passes.—Certificate of Origin 363
Siam Duties 364
Plaques.—Caustic Soda 365
Copy Books with Printed Headings.—Human Hair.—Cuban Manifests of Cargoes 366

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

German Railways 367
Railroads of the State of New York 368
Railway Statistics 370
Railroad Receipts for July.—A Method of Testing the Strength of Steam Boilers 371
Performance of Locomotives.—Louisville Canal 372
New York City Railroads —Railways of Connecticut 373

JOURNAL OF MINING, MANUFACTURES, AND ART.

Tin—Its Uses and Commerce 374
Engraving on Glass 375
Manufacture of Room or Wall Paper 376
Rags 377
Cotton Spindles 378
Silvering Lead Tubing.—Gas-light Companies of the United States 379
Thimble Manufacturing 380
Cooling of Metal Causing it to Heat Itself.—The American Pump 381

STATISTICS OF AGRICULTURE, &c.

Vineyards of France 382
American Agriculture 383
Sugar Estates of Cuba.—Forests—Their Decrease 384
Parceling of Land in France 385
The Japanese Silk Worm.—Silk of Zurich.—Flax and Silk in Great Britain 386

STATISTICS OF POPULATION, &c.

Emigration from the British Isles.—Pennsylvania Cities 387
Russian Emancipation.—Immigration into the West Indies 388
Population of Maryland in 1782 389

MERCANTILE MISCELLANIES.

Governors of Cuba.—Trading Too Much 390-391
The Cost of Recovering a Debt.—No Excellence Without Labor 392-393
Benefits of Advertising Illustrated.—Trade and Population among the Chief European States 394-395
Tobacco —One Price 396-397
The Restless and Dissatisfied.—Freak of Trade 398

THE BOOK TRADE.

Notices of new Books or new Editions 399-400

HUNT'S

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

SEPTEMBER, 1860.

Art. I.—REVIEW, HISTORICAL AND CRITICAL, OF THE DIFFERENT SYSTEMS OF SOCIAL PHILOSOPHY:*

OR, INTRODUCTION TO A MORE COMPREHENSIVE SYSTEM.

PART VIII.

THE INTELLECTUAL NIGHT OR DARK AGE OF EUROPE BRIEFLY REMARKED UPON, AND ITS FIVE DISTINGUISHING FEATURES—THE DAWN OF MODERN SCIENCE GLANCED AT—THE COMMONLY SUPPOSED INFLUENCE OF LORD BACON ON THE CAUSE OF SCIENCE CRITICALLY CONSIDERED—HIS SYSTEM OF PHILOSOPHY CRITICALLY EXAMINED—DESCARTES AND LEIBNITZ BRIEFLY NOTICED, AS THE GREAT REPRESENTATIVE MEN OF FRANCE AND GERMANY, AND, TO SOME EXTENT, OF THE AGE, THOUGH LESS SO THAN BACON—DISTINGUISHING CHARACTERISTICS OF THE PRESENT AGE—THE NECESSITY HENCEFORTH OF RENDERING OUR REVIEW MORE STRICTLY CRITICAL, AS IT HAS BEEN HITHERTO MORE PECULIARLY HISTORICAL, AND OF ADOPTING THE SYNTHETIC INSTEAD OF THE ANALYTIC METHOD OF CONSIDERING THE SOCIOLOGICAL IDEAS PASSING UNDER OUR REVIEW.

THE intellectual night which overspread Europe from the latter part of the *fifth* to that of the *fifteenth* century was not one of utter darkness. The reflected sunshine of former science threw a dim and solemn light, resembling *twilight*, and which may be assimilated to the protracted twilight of the northern latitudes, (if indeed it may not properly be compared to *moonlight*,) over the darkened landscape of European society, by which considerable attainments were made in architectural science, though chiefly in the departments of church building and castle building, and in other sciences which appertain to a state of society considerably elevated above that of rude or simple barbarism.

For in the intellectual night, to which mankind are liable, and in which they seem often to remain for a considerable period, without the fact being made apparent to common observation—as a native of the torrid zone might pass through a summer night in the arctic regions, without

* Entered according to an act of Congress, in the year 1859, by GEO. W. & JNO. A. WOOD, in the Clerk's Office of the District Court of the United States, for the southern district of New York.

realizing that it was night—the functions of the intellect are not by any means suspended, not any more so than are those of the natural world, by the terrestrial night to which it is subject; although the functions of nature in both cases—the *physical* in the one, and the *psychological* in the other—are performed with much less vigor and healthful manifestations during the period of night.

Nor was this intellectual night of Europe unrelieved by such transient and partial illuminations as often relieve the darkness of the terrestrial night. Intellectual lights of uncommon magnitude, like splendid meteors, (if indeed they may not more properly be compared to blazing comets,) among the brightest of which may be named Charlemagne, Alfred the Great, Abelard, Aquinas, and Roger Bacon, gleamed occasionally across the benighted sky, causing partial and transient illuminations, though diffusing no steady light amidst the general darkness. During the same period, the light shed from the far North, by the poets and historians of Iceland, then considerably in advance of other European countries, has been beautifully compared to the Aurora Borealis of their native skies,* diversifying the gloom of the European night. During the same period, also, the lingering civilization of Greece, then concentrated around Constantinople, and which may be assimilated to a huge *lamp*, fed by the *oil* of a former science, cast a pale and sickly light, in the region of the southwest, though penetrating but a little way into the surrounding and general gloom.

During this period of European history, which has been sometimes designated as the "Middle Age," and sometimes as the "Dark Age," there were five prominent influences, or causes, powerfully operating upon the condition of European society, and which have chiefly engaged the attention of those who have treated this portion of general history, either as mere historians, or as critical inquirers into the *anatomy* of human society—the Feudal System, the Spirit of Chivalry, the Crusades, the Ecclesiastical Authority of the Romish Church, and the Scholastic Philosophy. Neither of these influences, however, need detain us long, in this place, and simply because the ideas which they *prominently* suggest in relation to the philosophy of society are not of sufficient importance to demand particular consideration, in our Review, which, in the more peculiarly *historical* portion of it, on which we are now engaged, does not aim to notice any other ideas in Sociology than those which have been either *theoretically announced*, or else *practically and prominently illustrated* by actual occurrences or institutions, in former times, and before the present age, in which sociological ideas have assumed so much definiteness and form, in a theoretical point of view, as to admit of a more systematical and strictly *critical* examination.

It is true, that from a critical and searching examination of these influences, or indeed any one of them, in relation to their remote, as well as their immediate bearings on the condition of society, we might deduce many highly important principles in Sociology. For as Burke has justly remarked, "every theme branches off into infinity;" and, as Carlyle, a more profound thinker even than Burke, though a far less accurate and precise one, has said much to the same point, "all objects are as windows,

* See Sir George Mackenzie's Travels in Iceland, in 1809; also, American Review, vol iv., p. 286, October No. of 1812.

through which the philosophic eye looks into Infinitude itself;"* both of which remarks are in accordance with our own fundamental observation, that "all sciences are but the different spires of the same common temple whose foundation is all knowledge."† A profound inquiry, therefore, into the bearings of any one of the influences in question would readily enough lead us into all the *infinitudes* of social philosophy. But this would be, as it were, preaching a sermon of very great significance from altogether too inconsiderable a *text*, whereas the very aim of the present undertaking, of this REVIEW, HISTORICAL AND CRITICAL, OF THE DIFFERENT SYSTEMS OF SOCIAL PHILOSOPHY, is to *condense* what has been already stated at large, to compress sermons into texts, volumes into paragraphs, and to *express*, as it were, in a literal sense, the very *marrow*, or *most interior essence*, of all that is valuable, either in the speculation or practice of former times, and of the various races of men, in relation to the philosophy and science of human society.

In regard to the Scholastic Philosophy of "the Dark Age," after making due allowance for the remark of Hallam, that "Few, very few, for a hundred years past, have broken the repose of the immense works of the schoolmen,"‡ and for the consequently limited information which the present age may be supposed to have in regard to their philosophy, we may venture, pretty safely, to assert, that it is eminently unworthy of any special consideration. This philosophy appears to have been mainly concerned in the unprofitable attempt to compass the most incomprehensible of all knowledge to man, and which must, most probably, ever remain "a sealed book" to him, knowledge of the essential nature of God, or what we may venture to style the *metaphysics of theology*, and that too by the most false system of philosophizing. In the language of Tennemann, in regard to this Scholastic Philosophy, "The human mind thus endeavored at once, without any substantial knowledge or previous discipline, to grapple with the greatest of all questions, the Nature of the Divinity, and by a course, the reverse of that pursued by Grecian philosophy, beginning with this great principle, sought, in its descent, to embrace the circle of all acquired knowledge."§ In short, these scholastic philosophers, in common with a great many others, though these more especially than any others, adopted, in their search after truth, the preposterous mode of proceeding, or attempting to proceed, *from the unknown to the known*, instead of the very reverse, which is undoubtedly the only true mode of philosophizing, in every department of knowledge, that of proceeding *from the known to the unknown*. It should be superfluous to remark that such a mode of philosophizing, especially when applied to such objects as were mainly aimed at by the Scholastic Philosophy, must ever prove barren of useful results.

In regard to the Ecclesiastical Authority of the Romish Church, during "the Dark Age," nothing special need be said in this review. That it was adapted to the times, without which it could not well have flourished, that it exerted in the main a salutary influence during those times,

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* See Carlyle's Sartor Resartus, book i., chap. 11. The writer is not able to refer to the work, speech, or essay of Burke, in which the idea cited in the text was used by him.

† See Part I. of this Review, in October No. of *Merchants' Magazine*, for 1859.

‡ See Middle Ages, chap. ix., part ii.

§ See Tenneman's Manual of the History of Philosophy, as translated by Arthur Johnson and revised J. R. Morell, section 239.

and more potential than had ever been exerted before, or has been since, on human society, by any form of *theocracy*, and that it was, nevertheless, substantially the same kind of authority to which mankind in the earlier and ruder stages of society are generally prone to pay homage, are propositions which should be too generally recognized to need comment here.

In regard to the Crusades, very much might be said, of great and rare interest to the social philosopher, as well as to the mere critical inquirer into European history. But that which might thus be said is hardly suggested with sufficient prominence to be dwelt upon here, consistently with the scope of this review, as already indicated.

The Crusades not only illustrate, like the wars of the Saracens, the power of the religious sentiment, or of religious enthusiasm, on the general movements of society, but they illustrate the *generalizing and systematizing influence* which Christianity had already begun to exert on Europe—uniting all its different nationalities in a common enterprise. They illustrate also the influence of *external causes* on the development and growth of society, bringing Europeans into contact with foreign nations of Asiatic origin, and with nations much more advanced in civilization, at that time, than themselves, the beneficial effects of which on their manners and customs were manifestly displayed. They illustrate also a much more general fact, the *close and intimate analogy between social and individual organism*, intimating the general fact that social, as well as individual, life requires more vigorous exercise in youth, than in mature age, consistently with which fact, it may be observed that no human society, so far as history informs us, has ever yet attained to any considerable growth, or eminence in the family of nations, which did not, during its youth, have to sustain, in some form or other, desperate wars with other nations. The Crusades, in short, were, to Europe in general, what the Trojan war was to Greece, the Carthaginian and other early wars to Rome, the Tartar invasion to Russia, and the desperate struggles with the Danes and afterwards with the Normans were to the Saxons of Britain.

The important effects of the Crusades on European society are observable, *externally*, in the general improvement of manners and customs consequent thereupon, and, *internally*, in important changes in the *anatomical structure* of the society. For anything like an adequate delineation of these *internal* effects of the Crusades on Europe, reference must here be made to those justly renowned inquirers into the anatomy of European history, Hallam, in his "Middle Ages," and Guizot, in his "History of Civilization in Europe." One effect only will here be particularized—*a great abatement of the nuisance of predatory lordly barons*, whose prerogatives and privileges were absorbed by the *central lord*, or king, on one hand, and by the communities of mechanics and artificers, on the other. On this point the language of Guizot, in reference to the Crusades, cannot easily be condensed or improved: "It has been shown in what manner they had reduced a great number of feudal proprietors to the necessity of selling their fiefs to the king, or to sell their privileges to the communities, in order to raise money for the Crusades."*

The Spirit of Chivalry, highly interesting and remarkable feature in

* See Guizot's General History of Civilization in Europe, lecture viii., p. 208.

human history as it is, need not detain us long. It may be disposed of with the remark, that it was Christianity taking the form adapted to the then existing state of society in Europe—Christianity applied to war, and a war-scourged state of society, or, at least, that it was the highly wrought spirit of a naturally brave and noble race of people elevated, softened, and refined by the spirit of Christianity, and aroused to the necessity of extraordinary efforts to redress extraordinary grievances. In no similarly unsettled and habitually war-scourged state of society was such a noble spirit ever exhibited by mankind. Nor can it reasonably be doubted that the rude warriors of Europe, during that age, were indebted, for much of that noble *spirit of chivalry* which has rendered them illustrious, to the beneficent influence of Christianity, on which having already dwelt at some length* in a former article, it would be unnecessary repetition to dilate again in this.

It may indeed be said, that true courage is nearly always *chivalrous*, magnanimous; but it is never so much so as when chastened and refined by the religion of Christ, as when imbued with Christian principles, as when it has been *baptized*, as it were, not with water, but with the genuine spirit of Christianity.

If the justly renowned chivalry and magnanimity of the Saracen warriors of the same age should be urged against the view here presented, as to the influence of Christian ideas in begetting the *Chivalrous spirit*, it is to be replied that the Saracens themselves were *quasi* Christians, being imbued with the Mohammedan religion, which, as we have before had occasion to remark, may be regarded as a kind of *spurious* Christianity,† embodying many of its noblest principles, and that the Saracens of that age had the advantages of a much more advanced stage of civilization than that of the Europeans, to illustrate and embellish their chivalry.

The Feudal System, so often the theme of loose and superficial remark, not only in common conversation, but in essays, historical treatises, and even in works of more scientific pretension, may rather afford us occasion here to criticise the prevailing misapprehension as to its essential character, than for any particularly noteworthy observation which it suggests in relation to the philosophy of society.

The idea has prevailed hitherto, almost universally, notwithstanding some faint disapprovals of it, by eminent authority, that the Feudal System was, in some sense or other, an essentially different arrangement of society from any that had existed before or has existed since, that it was a *peculiar institution*, and that it was one of the prominent *causes* of the disturbed and distracted state of society which existed in Europe during the greater part of the Middle Age. The truth is, on the contrary, that the Feudal System was essentially, and to all intents and purposes, simply that kind of political arrangement which has always existed, and must always exist, to a greater or less extent, in such a rude, unsettled, and warlike state of society as then existed in Europe, and it was the *effect* rather than the *cause* of the existing condition of European society. Nay, in a larger sense, we might venture to say it was, *essentially*, pretty much the same arrangement of society that now exists in Europe, and in America, the real difference between the two states of society being in

* See sixth No. of this Review, in May No. of *Merchants' Magazine*.

† See seventh No. of this Review, in July No. of *Merchants' Magazine*.

the different *modes* in which the activities of the social arrangement were manifested.

It seems to be commonly imagined, and so it is expressly laid down, by the superficial law writers,* that the distinctive peculiarity of the Feudal System was in respect to landed tenures, and consisted in this, that *all lands were held of some superior, and only upon certain conditions;* most commonly those of military service—the barons holding ing directly of the king, or "lord paramount," on such conditions, and the vassals holding of the barons, on similar conditions. But in what essential or substantial respect did this species of landed tenure differ from that which is generically termed *allodial*, as contradistinguished from *feudal*, and which now generally prevails in Europe, and universally in the United States of America? Is not land everywhere, in these countries, and, in short, universally throughout civilized society, held by individuals, *of some superior*, as recognized by law, for example of the State, primarily, and, in a multitude of instances, of some individual landlord, secondarily? Is not land, universally throughout civilized society, held, moreover, *upon conditions*—upon the condition *that the taxes be paid*, and, to a very great extent also, upon the further condition, *that the rent be paid?* Or is it supposed that the nature of landed tenure is essentially varied by the fact, that the condition on which land is held, as under the Feudal System, is, for the most part, military service; that, in short, the rent is to be paid in shields and lances, or in so many "horse, foot, and dragoons?" What real or essential difference does it make whether the *rent* to be paid for land, whether to the State, through its tax gatherer, or to the landlord, through his bailiff, be so many lances, so many raccoon skins, or so many dollars in cash? Is not the real difference between these several cases rather *in the different conditions of society*, which render *lances* a paramount commodity of exchange in the one case, *raccoon skins* in the other, and *cash* in the other?—thus again verifying the great fundamental truth so often before remarked upon in this review, (substantially, if not in so many words,) and which we shall find repeatedly *cropping out* in Sociology, like the fundamental granite of geology, *that it is the condition of society which determines and gives form and direction to the political arrangements of the society, rather than those political arrangements which determine or give form and direction to the condition of the society.*

Hallam, in his remarks on the Feudal System, has recognized, to some

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* See Coke, Blackstone, Kent, *et id omne genus* of superficialists in Social Philosophy—a remark not intended to disparage these justly renowned names, in respect to their contributions to mere jurisprudence. But how extremely superficial is the influence of the mere jurist on the condition of society and how equally superficial are the ideas of such, for the most part, in respect to the philosophy of society. Kent, for example, in his remarks on Feudal Tenures, stumbled on the truth in question, in one place, where it *projected above the surface*, but he had not the discernment to recognize it. He says, in the very commencement of his remarks on this topic, "some writers have supposed that the sources of feuds were not confined to the Northern Gothic nations who overturned the Western Empire of the Romans, and that an image of feudal policy had been discovered in almost every age and quarter of the globe." See Kent's Commentaries on Law, vol. iii., p. 489, third Am. ed., and authorities cited in note thereto, which abundantly sustain this opinion, which precisely coincides with that expressed in our own text. Yet Kent, like a host of others, ignores the opinion, and passes very lightly over it. In fact, Chancellor Kent seems to have been a man who *staggered* under the vast weight of his learning, and tumbled to the right and left, not unfrequently, with confused and devious steps. He does not appear to have possessed that *Herculean* frame of mind which can move forward, unencumbered and unimpeded, by the most prodigious load of knowledge—steadied and rendered more direct in his motion, rather than unsettled by its weight. The learning of Chancellor Kent has often served to obscure rather than to illustrate his native talent—a remark not exclusively applicable, by any means, to that highly meritorious jurist and scholar.

extent, the truth of the observations here made, although with rather too timid hesitancy, and without that decisiveness and boldness of enunciation which should characterize one who is thoroughly master of the idea. He says, "If the view that I have taken of those dark ages is correct, the state of anarchy which we usually term feudal, was the natural result of a vast and barbarous empire feebly administered, and the cause rather than the effect of the general establishment of feudal tenures."*

One other remark on the Feudal System it is proper here to make, as having a direct and important bearing on the philosophy of society. The two principal kinds of feudal tenure, tenure by *knight service*, and *socage* tenure, were distinguished from each other, chiefly by this circumstance, that the services incident to the former were *uncertain*, while those incident to the latter were definite and certain. Now it was precisely this former species of tenure—that by knight service—which was essentially *uncertain* as to its requirements, that was universally held to be by far the more oppressive and injurious, so that when, in the 12th year of Charles II., a statute was passed abolishing tenure by knight service, and converting all landed tenure into "free and common socage," with some modifications of the tenure in socage, the feudal system, or all that has been commonly held to be peculiarly injurious in that system, was considered virtually abolished in England. This great prominent fact, concerning the Feudal System, it must be obvious, is a powerful corroboration of the fundamental remark made in the foregoing part of this review, *that the essential nature of the immediate evils of all bad government is* UNCERTAINTY.† We find that so soon as the previously uncertain conditions on which lands were held, for the most part, under the Feudal System, became stable, fixed, and *certain*, the evils of that system vanished.

The intellectual night of Europe was however far spent before the Feudal System had released its hold on the land, or the Scholastic Philosophy its hold on the mind of Europeans; and streaks of the morning had reddened the intellectual horizon before the Spirit of Chivalry had quite subsided, or the Ecclesiastical Authority of the Romish Church, which still brooded, like a nightmare, over the mind of Europe, had been sensibly abated, although the stirring clamor of the Crusades had then completely died away. And if this intellectual night was long and dreary, it was undoubtedly the precursor of a SPLENDID DAY. "The morning star of religious reformation" shone brightly over the isles of Britain in the 14th century. The gladdening beams of returning day, discernible in the revival of ancient learning, and a wide spread spirit of inquiry, lighted up the horizon toward the latter part of the 15th, and in the commencement of the 16th century the sun of civilization, after a protracted night of *ten centuries*, rose once more on Europe, and ushered in a DAY, destined beyond doubt to be one of far greater splendor and far more important achievement, than either of the preceding days of human enlightenment.

It has been long customary to compute the dawn of modern science from Sir Francis Bacon, and to attribute its most distinguished achievements mainly to the influence exerted by his extraordinary mind on the

* See Hallam's Middle Ages, chap. ii., part ii. of the chapter.
† See Part vii.

philosophy of the age. The former of these ideas is undoubtedly erroneous, and the latter has been greatly exaggerated.

The printing press had been invented, America had been discovered, Copernicus had promulgated his theory of the solar system, and Luther had triumphantly preached the doctrines of religious reformation, before Bacon appeared upon the stage of existence, the last and latest of which events had transpired fully a century before the *Novum Organum*, the greatest of the works of Bacon, was published in 1620.* Moreover, Galileo and Kempler, both contemporaries of Bacon, though somewhat younger men, had both promulgated their celebrated ideas in astronomy before the *Novum Organum* appeared.

Nay, Bernard Telesius, an Italian, who may not inaptly be styled the Bacon of Italy, who was born in 1508 and died in 1588, had, nearly a half century in advance of Bacon, attempted a reformation in philosophy very similar to that attempted by Bacon, seeking, like him, to ground knowledge on experience, or perception through *induction*, and attacking the system of Aristotle on the very ground on which Bacon attacked it, that it laid down as principles mere *abstractions*, and not real *existences*—*abstracta et non entia*.† It is manifestly erroneous, therefore, to compute the *dawn* of modern science, or even the SUNRISE of the present DAY of human enlightenment, from the time of Sir Francis Bacon, although it may be very just to say that *the real business of the day* fairly commenced with him.

Were it important to the purposes of this review to fix the time when the present day of human enlightenment may be regarded as having begun, we need have little hesitation in saying, that it began with the religious reformation inaugurated by Luther, early in the 16th century, when the minds of men became, in some degree, generally *illuminated* with the idea of their own individuality, and rights of independence, as sentient and rational beings. We might venture, moreover, to designate, as the very moment of SUNRISE to the present civilization, that ever-memorable occasion, the 10th of December, 1520, when Luther, before a great concourse of people, at the Elster gate of Wittemburg, indignantly burnt the Pope's fire decree, while "Wittemburg looked on with shoutings," and "the whole world was looking on." It is therefore with peculiar felicity that Carlyle, some of whose words, in reference to this event, we have borrowed, in the foregoing sentence, says, in relation to the shout which arose on that occasion, "it was the shout of the awakening nations."‡ Loftier intellects had, indeed, before this, caught the rays of the rising sun, but then, for the first time, it may be said, the sun-

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* This statement, that the triumphant preaching of the doctrines of religious reformation, by Luther, was later than the promulgation of the theory of Copernicus, concerning the solar system, may appear liable to censure, as an historical error, since Luther may be said to have virtually triumphed when he burnt the Pope's fire decree, before the Elster gate of Wittemburg, in 1520, whereas the treatise *De orbium celestium revolutionibus* of Copernicus was not completed until 1530, ten years later, nor published until 1543. But it appears that Copernicus had conceived and developed his ideas on astronomy as far back as 1507, although he had not as yet verified them sufficiently by mathematical calculations. In our text it is assumed that his ideas were *promulgated*, from the moment they were formed and developed, and the work of preparing them for publication, through the printing press, was begun. In this, we do but follow the maxim of the court of chancery, that "what is to be done is to be considered as done," from the time when it is legally directed to be done.

† See Tennemann's Manual of the History of Philosophy, translated by Johnson and revised by Morell, sections 298 and 316.

‡ See Carlyle on Heroes, p. 119.

light descended upon the eyelids of the multitude, and they recognized it with a shout.

As to the influence exerted by Bacon on the achievements of modern science, it does not appear to have been so marked or important as appears to be commonly supposed, nor is there any good reason to believe that it has been very much greater than that of other transcendent minds, whose contributions to philosophy have been far less bruited, mainly because they did not, like those of Bacon, have the destiny to appear at a time when the attention of mankind was but little distracted by multiplicity of authors, and when their ideas might well present the appearance of novelty—a circumstance not to be lightly regarded in attempting an estimate of the influence exerted by the philosophical writings of Bacon; since it is obvious, that, amid a crowd of authors, one of great merit is less likely to be recognized, than when he stands up, alone, like Pompey's pillar amid the solitudes of the modern Alexandria, and since the melody even of the swan is apt to go unheeded, if she be doomed to sing when every goose is cackling. The philosophical writings of Bacon have had the fortune to obtain *pre-eminence* in reputation, rather than to have merited it—another testimony to the truth of the poet's line,

"One Cæsar lives, a thousand are forgot,"

—a reflection which should curb the ambition of men to reign as *kings*, either in statesmanship, or fundamental philosophy, since it shows that few, if any, are really more gifted than a thousand of their fellows, and that, moreover, it is very uncertain whether the merit which they really possess, of deserving to be regarded as *one of a thousand*, will ever be recognized.

The merits of Bacon, as a leader in philosophy, were undoubtedly very great. But he is indebted largely for his *pre-eminent* reputation, to the *point of time* at which he appeared, and to the *place* which he occupies in the grand column of advancing humanity. He owes it largely to the fact that he belongs to the vanguard of modern philosophy—that he stands in the front rank of that grand army of scientific explorers and conquerors, who seem to be marching forward to the conquest of the universe, and the mastery of its grandest mysteries—to the fact that he stands foremost, or among the foremost, in that long and brilliant retinue of intellectual giants, whose prodigious strength and wonderful achievements might well lead an enthusiast to imagine that we are approaching the reign of *gods*, or at least of *demigods*, rather than men, in the intellectual sphere of earth.

For this, merit must be accorded to Bacon, that he was among the foremost, and most prominent among the foremost, of these giants. It is true that Columbus, Copernicus, and Luther were slightly in advance of him on the field of action. But their aims and achievements, though highly important, were far more circumscribed. Columbus aimed merely at an extension of knowledge in Geography, Copernicus in Astronomy, and Luther in respect to the more interior and occult relations of man to Deity, or what is commonly called religion. But Bacon, to use his own terse and sententious language, *took all knowledge for his province.** He was, moreover, the first of all philosophers who seems to have done so,

* See Bacon's letter to his uncle, Lord Burliegh—also Macaulay's Essays, article on Lord Bacon.

or at least to have done so from deliberate design, and with a clear conception of the fitness and propriety, as well as the vastness, of such an undertaking.

It is true that earlier philosophers, and particularly those of Greece, had attempted to compass the bounds of all knowledge, as in all ages there seems to have been a desire, on the part of all true philosophers, to grasp *the all*—the *to pan* of the Greeks. Accordingly, we find Plato and Aristotle, though more particularly the latter, tugging at all the then known sciences—Aristotle having treated not only of Ethics and Politics, but also Physics, Metaphysics, and Logic—which last, Logic, or the science of the formal processes of the mind in reasoning, he treated with distinguished success. But neither Plato, nor Aristotle, nor any other philosopher before the time of Bacon, seems to have had a clear conception of the idea, that *all knowledge* has an intimate relationship, and a vital connection of parts, which give it a homogeneousness and entirety of nature—that, in short, the *tree of knowledge* is one and indivisible. It was Bacon who first distinctly announced, that "the distributions and partitions of knowledge are like the branches of a tree, that meet in a stem, which hath a dimension and quantity of entireness and continuance;"* and who laid it down as a rule, "that all partitions of knowledge be accepted rather for lines and veins, than for sections and separations, and that the continuance and entireness of knowledge be preserved."†

Bacon may be regarded as the first philosopher who gave distinct utterance to this great and eminently valuable idea, *of the necessity of attempting to grasp all knowledge as a whole*, even when considering any one of its parts, an idea which has been subsequently developed, much more prominently, in the grand conceptions of Swedenborg, Fourier, Comte, Humboldt, Schelling, and other German philosophers, who, like Schelling, have regarded the universe, and perhaps more properly, from the *metaphysical* or *subjective* stand point, rather than from the *physical* and *objective*, from which Bacon almost exclusively regarded it, although these German metaphysicians have been altogether too much immersed in the mere *conceptions* of *reason*, as was Bacon too much immersed in the mere *perceptions* of *sense*.

Bacon was the first philosopher who, with deliberate design, made this vast effort to compass all knowledge, who strove to sustain, like the fabled Atlas of antiquity, the world of knowledge, the universe of thought, upon his shoulders. What, though, in attempting to shoulder the universe, he tugged at it with only one shoulder, the shoulder of Induction, which is undoubtedly the right shoulder. Philosophers before had been tugging at it with the other shoulder, almost exclusively—the shoulder of Deduction. It was something, and of no small consequence, to shift the effort from the left to the right shoulder, the more especially as the consequence has been to bring both shoulders into service.

Much has been said as to the merits of the Inductive or Experimental system of Philosophy, recommended and elaborated by Bacon, in his *Novum Organum*, and many writers have expressed themselves, in relation thereto, as if they supposed that to Bacon was due the credit of having invented that method or process of reasoning. The truth should,

* See Advancement of Learning, as published in 1605, book ii., p. 98, of London edition, of 1894.
† Same, p. 114.

however, be obvious enough, that neither Bacon nor any one else ever invented the process of *inductive*, any more than of *deductive* reasoning—both processes being as natural to the human mind, as the process of respiration to the body, by one of which the mind *breathes in*, as it were, and by the other *breathes out* ideas, as by the double process of respiration the body inhales and exhales air. Every system of Philosophy, moreover, it should be obvious enough, comprehends, to some extent, both the inductive and deductive methods of reasoning, that is, ascends from particulars to generals, as well as descends from generals to particulars; for a system of mere induction, without any *synthesis* or generalization, would be the most barren *empiricism*, while one of mere generalization, without any previous induction, or subsequent testing of the generalization or *hypothesis*, by experiment, would be the most empty *dogmatism*.

Nay, moreover, it should be obvious enough, that, "there is," as Morell has remarked, in his history of Modern Philosophy, "a logic of *induction*, as well as of *deduction*, having rational axioms at its foundation, and that, without these axioms, or the truths which they embody, being in the mind, the outward observation, whereon they, (the sensationlists like Bacon) so firmly rely, would be altogether nugatory";* and that, therefore, the difference between the *inductive* mode of reasoning, which Bacon is erroneously supposed to have invented, and the *deductive*, which had, before his time, been much more generally employed, is not essentially or really so great as is commonly imagined.

What, then, did Bacon really accomplish for the cause of science and philosophy, that he should have acquired such great celebrity, as a leader in Philosophy, and that he should have been so commonly regarded as "the Father of the Inductive Philosophy"? If the author of this review is right, in regarding all sciences as but the different *members* of the same common *body;* nay, if Bacon himself was right, in regarding them as but the different *branches* of the same common *stem* or *trunk*, then this inquiry is not out of place in a "Review, Historical and Critical, of the Different Systems of Social Philosophy." For in such an inquiry, we shall be but considering the condition of the body or trunk of general philosophy, before proceeding to examine that of its separate members or branches, or rather, we shall be but considering what has been done by modern philosophers, for the body or trunk of general philosophy, before proceeding to inquire what has been done by them for that particular member or branch of the common body or trunk, which is specifically the subject of the present undertaking.

What Bacon has accomplished for science and philosophy, may be summed up in one sentence. He enlarged the conceptions of philosophers in general, by his comprehensive, all-embracing plan of regarding the sciences, and has thereby enlarged and invigorated the general body of Philosophy; he illustrated, with an overwhelming force, the importance of a more enlarged *induction* of facts and observations, as a basis of generalization or scientific conclusion, than had before been adopted; and he exerted a powerful influence in turning philosophic attention from the *contemplative* pursuits, to which it had been, before, altogether too much addicted, to the *active*, from the theoretical to the practical, from the speculative to the actual, from the internal to the external, from the mere

* See J. D. Morell's History of Modern Philosophy, chap. iv., sec. i., sub-sec. C., p. 321.

conceptions of reason to the perceptions of sense—in short, from the too purely spiritual to the material.

This much Bacon has accomplished for science and philosophy, and but little if any more. It is evident, however, that it was something more than this which he aimed to accomplish, and which he flattered himself with the idea that he had accomplished. He aimed at conferring a specific benefit, as well as exerting a general influence, on Philosophy. He aimed at furnishing it with *a new method for acquiring knowledge* of extraordinary virtues—the Inductive method; and he has, moreover, acquired the reputation of having effected what he aimed at, though he has not merited it. For not only is there nothing specifically new, in the Inductive method of reasoning, recommended by Bacon, (as we have already remarked,) but there is no specific virtue in that method of investigating truth, no *talismanic power* that it possesses, as Bacon seems to have imagined, which could insure us against error in our conclusions. Indeed, the history of Lord Bacon, as a philosopher, affords another and striking illustration of the truth, that men often aim at one end and attain another, either essentially different, or else more or less comprehensive than that at which they aimed. And this remark naturally leads us to inquire, with somewhat more particularity, what it was, then, Bacon aimed to accomplish, and what it was that he actually accomplished for the cause of Philosophy?

Of all the manifold writings of Lord Bacon, not excepting his masterly essays, in which his peculiar genius is really more conspicuous than in any other, the greatest, though not the most unexceptionable, are undoubtedly those which he aimed to make the greatest, and which he evidently regarded as the great business of his life, those which he has comprehended under the august title of the "Magna Instauratio," or "Grand Instauration," in which, essaying to set aside or disregard all previously acquired knowledge, or supposed knowledge, nay, to pull down the whole structure of the sciences, as they then stood, he proposed to set mankind to work to obtain knowledge upon a *new method*, and to reconstruct the whole edifice of science, upon a *new* and *more reliable basis*. This great undertaking Bacon divided into *six parts*, which, like other great undertakers, he never completed, having been overtaken by death, the great destroyer of all the vaulting aspirations of man, before he had completed more than the first three parts of his great design. These three parts of the "Grand Instauration," which Bacon actually completed, were, *first*, the "Advancement of Learning"—first published, in English, in 1605, divided into *two* books, and subsequently published in Latin, under the title of "De Augmentis," somewhat enlarged in body, and divided into *nine* books—*second*, the "Novum Organum," first published in 1520, in Latin, and divided into *two* books, and *third*, the "Sylva Silvarum," literally, "Leaves of the Woods," or less literally and poetically, "Phenomena of the Universe," a miscellaneous collection of facts, without order, and of no great value. It is in the first of these works, the "Advancement of Learning," that Bacon makes the classification of the sciences, which has already come under our review, in the present undertaking.* It is in the second, or the *Novum Organum*, that he develops, more particularly, the Inductive method, with which his name has been

* See part II. of this review, in November number of *Merchants' Magazine*, for 1859.

so intimately associated, and which it is now proposed to subject to a brief review. To develop and establish this Inductive method, was evidently the grand aim of Bacon's philosophical writings. In seeking to carry out this cherished aim, while he rendered signal services to the cause of philosophy, though incidentally, rather than directly, he was betrayed, by that overweening importance which men are so apt to attach to their own cherished ideas, into great errors—errors, which, had not the good sense of the age corrected, or refused to imitate them, would have led philosophy into almost as unprofitable a method of inquiry, though of an opposite character, as that from which it was his aim to divert it. In short, Bacon enjoined a far too rigid adherence to induction or experiment, and he vastly overestimated its efficacy, as a method of acquiring knowledge.

I. *Bacon enjoined a too rigid adherence to induction and experiment.* There is no necessity for dwelling so long on experiment, as he recommended, in order to arrive at new facts or principles. It is sufficient to withhold assent to any conclusion, or theory, until it has been verified by experiment. Had philosophers adhered strictly to the directions of Lord Bacon, as to the true method for seeking to obtain knowledge, the human mind would have continued, almost as entirely, *to mark time* merely, instead of making *a foreward march*, in modern, as in ancient times.

By shutting up the mind, as Bacon recommended, against all theory or generalization, until there has been a long series of experiments and sub-experiments, we deprive ourselves of many rare and valuable opportunities for enlarging the boundaries of our knowledge. By so doing, we deprive ourselves of the advantages to be derived from those moments of sudden inspiration, of transient illumination, when, by an immediate revelation from the great source of intelligence, it is permitted us to see, or when, by a spontaneous flash of intelligence, the mind gives itself light to see, clearly, into the surrounding darkness of the unknown. It was precisely in one of those moments of sudden inspiration, or transient illumination, as common report informs us,* that Newton discovered the great law of universal gravitation, which completed the grand and brilliant series of modern discoveries in Astronomy. It was not by following out the rigid and elaborate system of induction, recommended by Bacon, that he made the discovery; nor was it by such a tardy and awkward process that Copernicus, Kepler, and Gallileo made theirs. In a moment, in the twinkling of an eye, as Newton lay there, in the orchard, the revelation came upon him, the great thought flashed upon his mind, *that the same law, which caused the apple to fall, extended throughout the universe, and sustains the planets in their spheres*, and starting up, like Archimides of old, he mentally exclaimed, "*eureka*," and set himself at once to work, to ascertain whether the idea was sustained by the known facts of planetary motion, whether the *revelation from above* was in accordance with the *revelation from below*, the conception of reason with the perception of sense, the deduction with the induction. Had Newton acted strictly upon Baconian principles, he might be still experimenting upon the grand problems of Astronomy, (had life been permitted him so long,)

* Brewster, in his Life of Newton, throws some doubt upon the apple story. There is little reason to doubt, however, that the story is substantially, if not literally, true.

with but little prospect, perhaps, of a solution; nor is it easy to say, at how tardy and snail-like a pace scientific discovery would have progressed, under a strict adherence, universally, to those principles.

Bacon has, indeed, furnished us with a practical illustration, how little fitted he was, with the aid of his cherished method of philosophizing, for the work of specifically advancing the sciences, and how, in his vast general plans for the "Advancement of Learning," he contributed, in some particulars, to its retardation. For in the very work of his, styled, "The Advancement of Learning," we find him, in allusion to the now familiar idea, which had been then but recently demonstrated by Gallileo, and defended by Gilbert, *that the earth revolves on its axis*, stigmatizing it as "the extravagant idea of the diurnal motion of the earth, an opinion which we can demonstrate to be most false."*

This rejection of the truth, as to the diurnal motion of the earth, may be regarded as the legitimate fruit of rigid Baconianism. In short, Bacon dwelt altogether too much on outward observation. He did not duly consider that knowledge comes *from above* as well as *from below*, *from within* as well as *from without*, from the *internal* as well as the *external* world, and that the intuitions of reason, not less than the reports of the senses, often reveal to us important truths, which we may very safely accept, subject to revisal and correction by subsequent examination and experiment.

II. *Bacon vastly overestimated the efficacy of Induction as a method of acquiring knowledge.* He seems, indeed, vainly to have imagined, that, by the rigid system of experimenting in quest of knowledge, which he prescribed, in the second book of the *Novum Organum*, he had invented a sort of *rule* or *compass*, which would equalize all minds, in their capacities, to acquire new knowledge, and destroy those different degrees of sagacity, which nature, in her eternal constitution of things, has prescribed for different minds, and which make the philosopher differ from the dunce.† He does not seem to have duly considered, what we have before remarked,‡ that there is a logic of induction, as well as of deduction, and that unless the process of this logic be rightly performed, nay, unless the fundamental propositions on which it is grounded be correct, it may lead us just as far from the truth as the logic of deduction, which he labored so habitually, in all his philosophical writings, to depreciate.

Nay, Bacon does not seem to have discerned, what should have been apparent to an intellect so gifted as his, that the *inductive method* had not been neglected by philosophers before his time, so much because they did not recognize its value, as because their attention was mainly directed to pursuits to which the deductive method of reasoning was better adapted—to abstract speculation rather than to practical inquiry; a fact, which Macaulay, in his criticism on the life and character of Lord Bacon, has not failed to point out with his usual felicity and force§

Having said this much, as to what it was that Bacon aimed to accomplish, and the errors into which he was led in the prosecution of that

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* See Advancement of Learning, enlarged edition, book iii., ch. iv. It is a little singular, that Macaulay, in his somewhat searching and severe review of Bacon's life and character, does not notice this great mistake of his lordship. But Macaulay, though very severe upon Bacon, as a politician and man of integrity, was rather too deferential to him, as a philosopher—possibly because Macaulay was better qualified to judge of Bacon the politician, than of Bacon the philosopher.

† See Novum Organum, book i., aphorism 122; also preface to same work.

‡ See *ante*, page 285, of this article.

§ See Macaulay's Essays, article on Bacon—also *Edinburg Review* for 1837.

aim—errors which consisted mainly in the exaggerated and too exclusive importance which he attached to intrinsically valuable ideas—it remains that we should notice, somewhat more particularly than we have as yet done, what it was that he really accomplished for philosophy.

In addition to what we have already said on this point,* or as amendatory thereto, it may be said, that while Bacon failed to accomplish the specific end at which he aimed, of furnishing a new method for acquiring knowledge, of special and extraordinary virtues, he effected a general end, of vast importance to Philosophy, by calling attention, generally, to a hitherto too much neglected method of inquiry—the Inductive method. It is not any specific work that Bacon achieved for science, or philosophy, that merits commendation, but rather a general influence which he exerted on the spirit of philosophy—a new general habit of philosophical inquiry, which he promoted and encouraged, and which he may be said to have permanently established. While he did not invent the Inductive method, he developed it into a prominence which it had never before attained. He fixed and established it so firmly in philosophical regard, that there is no danger that it will ever again be generally or extensively disregarded. In short, in the fashionable parlance of the day, Bacon may be said to have *crystalized* the Inductive method. As the previously unfixed and floating carbon of the mineral kingdom was, during the *carboniferous* period of geological history, crystalized and condensed into the vast coal deposits, which have remained ever since, and will remain for ages yet, to warm and vivify the inhabitants of earth, so the great mind of Bacon crystalized and condensed the previously floating and unsettled ideas of the intellectual kingdom, respecting the Inductive method of acquiring knowledge, into that great depository of his largest thoughts, the *Novum Organum*, where they will remain, for ages to come, a vast *mine* of thought and suggestion to subsequent philosophers.

Nor is it so much in exhibiting the specific utility of the Inductive method that the great merit of Bacon's greatest work, the *Novum Organum,* is conspicuous, as in exhibiting the importance, in general, of disabusing the mind of hastily formed notions, or *idols*, as he (or rather his translator into English) has styled them,† and submitting it patiently to observation, with a view to its taking in the *real form* of things. In other words, the most distinguishing merit of the work consists in its injunctions as to the importance of striving patiently and laboriously to *interpret* nature, rather than, by anticipation, to guess at her meaning. His remarks on the various species of *idols*, or false appearances, by which the human mind is infested, and which he fantastically enough, though not inaptly, styles Idols of the Tribe, Idols of the Den, Idols of the Market, and Idols of the Theater, are among the most valuable to be found in the compass of human language.‡ As intimately related to

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* See *ante*, pages 285 and 286 of this article.

† The term used by Bacon, in his Latin text, is *idola*, the plural of *idolum*, which comes from the Greek *eidolon*, which signified, with the Greeks, simply an illusion, or *false appearance*, and not an image worshiped with religious reverence. It is doubtless in the former sense that *idola* was intended by Bacon, and that the English word *idol*, as translated from it, should be understood in the *Novum Organum*. So also argued Hallam, but others have thought otherwise.

‡ See Novum Organum, book I., aphorisms 39, 40, 41, 42, 43, 44, and 45. By Idols of the Tribe, Bacon means those false notions that are common to mankind in general; by Idols of the Den, those that are peculiar to particular individuals; by Idols of the Market, those which are formed from reciprocal intercourse; by Idols of the Theater, he means those false notions or dogmas which have been authoritatively promulgated by particular systems of philosophy.

these, and in the same connection, are thrown out certain *guards* or *cautions* to the human mind, against too hasty conclusions, and with special reference to some of its peculiar predispositions to error, and liabilities to be deceived, which are deserving of the highest consideration. These are the really valuable ideas—the truly grand features of the *Novum Organum.*

In short, the real and essential tendency of Bacon's philosophy, especially as developed in its great culminating effort, the *Novum Organum*, is towards skepticism, doubt, and the suspension of judgment; and its true motto is well expressed, in the words of the illustrious sage himself, to be found in the Advancement of Learning, "If a man will begin with certainties, he shall end in doubts; but if he will be content to begin with doubts, he shall end in certainties."*

By guarding the mind so rigidly against false impressions, his philosophy inevitably has this tendency, to skepticism, which is undoubtedly the right tendency, since every true philosopher is skeptical, if he be not a positive *skeptic*, and the beginning of wisdom is to doubt. For the evils of positive error are really greater than those of a mere negation of knowledge; and it is far better to have no notions at all than to have false ones, for these false notions stand in the way of receiving true ones.

Finally, and still more in brief, the essential work of Bacon as a philosopher, consisted mainly in guarding the mind against false notions, rather than in aiding it (as he erroneously supposed he was doing upon a grand scale) to acquire true ones. It was to that extent, at least, a grand preparatory to a true and complete system of philosophy, since nothing better prepares the mind to receive truth than to clear it of error, and guard it against the intrusion of error. Moreover, his efforts have, indirectly rather than directly, contributed in no inconsiderable degree, doubtless, to the positive advancement of knowledge; for the good sense of the age has rejected his counsel to discard altogether the deductive or *dogmatical* method of inquiry, while it has accepted his instructions, to the extent of recognizing the importance of bestowing more attention on the inductive or *empirical.*

After this somewhat severe criticism on the philosophy of Bacon, it should be superfluous to remark, that the distinguished achievements of modern science are attributable, only in a very partial degree, to his exertions—that he serves rather to mark the character of the philosophy of the age than to have determined it—that he embodied, in an extraordinary degree, its leading characteristics, (as did Aristotle those of his age,) rather than moulded the age into an embodiment of his characteristics—that he was, in short, the *outgrowth* of his age, rather than his age the outgrowth of him.

That such was the true relation of Bacon to his age is abundantly proved by the fact, already adverted to, of the distinguished discoveries that had been already made before the publication of his philosophical works; and by the further fact, that many of the most distinguished contributors to science subsequently thereto, have not testified to any important suggestion that they derived from him, and do not appear to have been at all indebted to him for their ideas. For, as Brewster, in his recent Memoirs of Sir Isaac Newton, tells us, that truly great discov-

* See Advancement of Learning, book i., p. 88, of original work, and London edition of 1824.

erer in science did not, in his philosophical writings, once allude to the *Novum Organum*, nor to Lord Bacon.* All that was really valuable in the *Novum Organum*, or in the Inductive method, however, Newton attended to, most probably without having read that renowned work, or being aware what it contained, and he would no doubt have done so, just as much, had his own *Principia Mathematica* been written before as after the publication of the *Novum Organum*.

In view of these significant facts, it would surely be preposterous to assert that the present age is indebted to the philosophy of Lord Bacon for its most distinguished achievements, or its most distinguishing ideas —that Descartes or Leibnitz was the outcome of Bacon, or that the *Principia* of Newton was attributable to the *Novum Organum*.

But while Bacon is to be regarded rather as the *outgrowth* of his age than as the moulder of its character, it is to be borne in mind that, like other outgrowths, he *reacted* on the soil from which he sprang, and imparted to it no inconsiderable fertility. For, as Guizot has justly said of governments, that "they are, saving a powerful reaction, what the people make them," so it may be said of Bacon, that, saving a powerful reaction, he was what his age made him, or, to speak with more scientific precision, what the *race* from which he sprang, and the *circumstances of the age*, made him. And as the reaction of government on the society from which it springs is powerful, so was the reaction of Bacon on his age; and his influence has rather grown than diminished with time, having been greater, probably, during the 18th and 19th centuries than during the 17th, when it was first communicated.

By having embodied to so great an extent, and with such extraordinary power, many of the great characteristic ideas of his age, Bacon seems destined to exert an influence somewhat similar to that exerted by Aristotle, who so long reigned over the intellectual kingdom of man, though not by any means so great as that exerted by the philosopher of antiquity. A striking resemblance may indeed be detected between these two distinguished characters, in the parts which they have played in the intellectual history of mankind, and in the position which they occupy in the *geographical profile*, so to speak, of humanity—looming up into lofty prominence, the one near the close of the ancient, and the other near the commencement of the modern age, and both serving as conspicuous *landmarks* to indicate the progress of the race, and by which they have, to a great extent, shaped their course.

No two minds, perhaps, scarcely excepting that of Confucius, have ever exerted a greater or more lasting influence on the direction and character of human thought than Aristotle and Bacon. From the time of Aristotle to that of Bacon, human activity, in matters of philosophical speculation, as well as of scientific endeavor, with some partial exceptions, took its direction from the former, scarcely ever venturing out of the track which he pointed out, as, since the time of Bacon, it seems destined, although to a far less extent, to take the direction mapped out by him.

Indeed, it may be said, without any very great or questionable stretch

* See Brewster's Memoirs of Newton, chap. 27, of vol. ii., pp. 403-4, of Boston edition of 1855. In this connection, the biographer of Newton makes some very just observations on the futility of Bacon's philosophy, as to its specific virtues as a method of acquiring knowledge, which fully sustain the ideas of our text. On this point, see particularly page 405 of vol ii. of the Memoirs.

of fancy, that the progress of mankind in knowledge stopped at Aristotle, and began again at Bacon, leaving *a great chasm* of two thousand years, through which the human race groped their way in many devious wanderings, or leaving, at best, a *great level waste*, across which the race marched without making any ascent, except a partial one during the period of the great Arabian enlightenment.

This simile would be entirely unexceptionable if we might adopt the theory of those who imagine that the human race are moving forward, and steadily advancing, as across a level plain, or rather up an inclined *plane*, and that they neither move, nor are moved, in any other direction than in that forward or upward one. But the better opinion seems undoubtedly to be, that mankind are moving in a *spheroid*, or, rather, to speak with more scientific precision and completeness, the better opinion seems undoubtedly to be, that the intellectual or moral world, which is outwardly manifested in man, is, like the material, *spherical* in its motion—*all motion, indeed, seeming evidently to be spherical, moral as well as physical*—and that, in addition to its own inherent activities, it is whirled through the realms of moral space by laws of revolution which subject it to periodical visitations of day and night, or periods more or less favorable to the development of intellectual activity—these periods of day and night varying from one to twenty *centuries*, as the period of terrestrial day varies from one to twenty *hours*, or even six months, as at the poles—and that, in each returning period of day, the *flora*, or vegetation, so to speak, of the intellectual world, depends upon its peculiar intellectual adaptabilities, which are different in different periods of the intellectual world, as the geological stratifications of the terrestrial world are different in different geological epochs—a day or night in the intellectual world being considered equivalent to a geological epoch in the terrestrial.

According to this idea, Aristotle may be regarded as the most commanding and prolific elevation in the *geological stratification*, so to speak, of the intellectual world of antiquity, in which were matured, in rare excellence and great profusion, the seeds of thought peculiar to that epoch, and which were destined to prevail until a higher order of intellectual *vegetation* should be developed, to supplant or overshadow them. According to this idea, likewise, Bacon is to be regarded as the most commanding and prolific eminence in the modern *stratification* of the intellectual world, on which, the earliest sunlight of the modern day falling, the fruits and flowers of the intellectual *flora* of the modern age were first ripened into a general harvest, whence the seeds have been wafted and scattered, far and wide, over the modern world

While we thus accord to Bacon the distinction of having been the most commanding intellect in the intellectual stratification of modern society, on which, as on some commanding eminence, the superior ideas of the present age were first ripened into a general crop, and from which they were extensively propagated and disseminated, we should form a very incorrect notion of the real measure and extent of his influence, and of the true philosophical history of the age, if we should regard him as the only such intellect. Others there were, scarcely less illustrious, to whom the like distinction is to be accorded, though somewhat later in yielding their ideas. Prominent among these are to be named Descartes and Leibnitz, the former of whom illustrated, most conspicuously, French,

and the latter German, intellect, and these three characters—Bacon, Descartes, and Leibnitz—merit the distinction of being regarded as the great representative men of the Anglo-Saxon, French, and German races respectively.

Descartes, who was the junior of Bacon by only *thirty-five* years, (having been born in 1596, while Bacon was born in 1561,) apparently without having taken any suggestion whatever from Bacon, was moved by a like desire to reform Philosophy, upon a grand, comprehensive scale, and under a like conviction of the futility of the methods of philosophizing which were, at that time, extensively cultivated, and which had hitherto generally prevailed. Like Bacon, too, he proceeded by the Inductive method,* but upon a different *plan*, or perhaps we should rather say, from a different *stand-point*. While Bacon regarded phenomena almost exclusively from the *objective* or physical stand-point, Descartes regarded them almost exclusively from the *subjective* or metaphysical. Bacon, like the commonalty of mankind, assumed, or took for granted, the reality of *sensuous* appearances, and the reliability of the testimony of the senses, for although he admitted the fallibility of the senses, yet he sought to guard them against error merely by extending the range of *sensuous* observation; Descartes, with a more truly philosophical spirit, began his search after knowledge with a profound inquiry into the qualities of the mind, or *knowing principle*, the nature of its ideas, and its faculties of cognition, starting with the famous aphorism, which has been so intimately associated with his name—*cogito ergo sum.*† Bacon proceeded upon the dogmatic plan, of taking *outward appearances* for granted; Descartes, more profoundly and wisely, proceeded upon the critical plan, of closely questioning our *internal consciousness* as to the reliability of outward appearances. Yet Descartes, not less than Bacon, proceeded upon the Inductive method, and most probably without having ever seen the *Novum Organum*, and certainly without making the slightest allusion to it in any of his philosophical writings, either in his great work, the "Principia," first published in 1644, or in his "Meditations on Primary Philosophy," first published in 1641, or in his "Discourse on Method," first published in 1637—thus affording another evidence how little the age is specifically indebted to Bacon for any of the ideas he inculcated as to the Inductive method.

Descartes did not, like Bacon, write any elaborate treatise to demonstrate the importance of attending to induction or experiment, yet he attended to it quite as rigidly as was necessary,‡ directing his attention quite as closely to the simple facts of consciousness, in his endeavors to

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* The writer must here deplore, in common with a multitude of others, who aspire to accurate thinking and speaking, the lamentable lack of accuracy and precision in language. He here uses the term *method* in a somewhat different sense (and a more restricted one) from that in which it has been sometimes used. For example, Tennemann, in his History of Philosophy, as translated by Johnson, uses the term *method*, or philosophical method, in the same sense in which the writer here uses *plan*. He speaks of the dogmatic method, and the critical method, of philosophizing, whereas, we should here rather term it the dogmatic or critical *plan*, or system, which might either proceed by the Inductive or Deductive *method*.

† These are the very words of Descartes, for, like the philosophers of his century, he wrote his greatest works in Latin. For the non-Latinized English reader, it may be proper to render this famous maxim of his into its English equivalent of words—"I think, therefore I am."

‡ This remark must be understood as applicable to the general plan and method of his philosophy, rather than to his practical applications of it; for in these, like a host of other philosophers, Descartes wandered greatly from his own theoretical principles, which, indeed, it is very difficult to avoid. D'Alembert has well said of Descartes, that "he began with doubting everything, and ended with believing that he had left nothing unexplained."

ascertain the real nature of mind, as did Bacon to the simple facts of sensuous observation, in his endeavors to ascertain the real nature of matter, or, more particularly, of *heat*, to which he specifically addressed his inquiries (by way of illustration) in his *Novum Organum*. In short, Descartes is quite as much entitled to be regarded as the father of Experimental Philosophy in metaphysics, as Bacon in physics; or, rather, as Bacon is, with some propriety, styled the "father of Experimental Philosophy," in general, so Descartes may, with equal propriety, be styled the father of Metaphysics,* in particular. For, before his time, metaphysics not only had none of the well defined characteristics of a science, which, indeed, it can scarcely claim to have now, but it scarcely possessed any of the *incipient* characteristics of a science, although, of course, metaphysical questions had been extensively discussed before; although Plato had been profoundly metaphysical, and Aristotle had written a treatise on metaphysics, or rather a treatise to which that name was attached, and from which the name took its origin.†

As science in general is indebted to Bacon for the first clear, distinct, and widely proclaimed announcement, that, if we would make any sure attainments in knowledge, we must attend to facts, *to observations in general*, so metaphysical science is indebted to Descartes for the first clear, distinct, and widely proclaimed announcement that, if we would make any sure attainments in knowledge as to the nature of soul or mind, and of *real being*, either in the realm of matter or of spirit, we must attend to the facts of consciousness, to *inward observations*.

It may be worthy of remark, moreover, that Bacon and Descartes bear very nearly the same relation to each other as do two of the most renowned philosophers of antiquity—Aristotle and Plato. Bacon may, with considerable propriety, be considered the Aristotle of the modern age, notwithstanding he more frequently assails the ideas of Aristotle than those of any other ancient philosopher; and Descartes may, with equal propriety, be considered its Plato, although there are other characters in the present age who may, with still more propriety in some important respects, be compared to Plato, without possessing, however, the same immediate relationship to its Aristotle as does Descartes—as, for example, Swedenborg and Fourier, who, in the overtowering grandeur of their conceptions, however delusive, in the vastness of their generaliza-

* The term metaphysics is here used in its largest sense, as comprehending both Psychology and Ontology, or both the doctrine of *soul* and of *real being*. Hitherto, the term has been commonly and improperly understood as a synonime of Psychology only, although of late some have attempted, on the other hand, to restrict its meaning to Ontology, or the doctrine of *real being*, or substantial essence, as contradistinguished from *sensuous appearance*. But quite obviously Psychology and Ontology are too intimately related to admit of separation. For what can we ever know of *real being* as contradistinguished from *sensuous appearance*; nay, what can we ever know of sensuous appearance itself, except as it is revealed to us by the *soul* or *mind*? Quite evidently, Psychology is the *vestibule* to Ontology, the *door-way* by which alone we can gain admission, or rather insight, and very dim and imperfect at that, into the grand temple of real Being—seeing, through the muddy medium of our sensuous-steeped faculties, only "as through a glass, darkly."

† It is doubtless known to many, though not probably to all, that the origin of this word—"Metaphysics"—was accidental, and owing to a rather trivial circumstance. After Sylla had brought the manuscripts of Aristotle from Athens to Rome, and when Andronicus of Rhodes undertook to publish them, being somewhat at a loss what general title to give to fourteen books of the Aristotle manuscripts, which treated of those abstruse, obscure matters, now commonly called metaphysical, he prefixed to them the title, *Ta meta ta physica*, which signifies, literally, nothing more than *matters or things after those which relate to physics*. It is uncertain whether Andronicus meant, by this title, merely to denote the place which these matters occupied in his general arrangement of the works of Aristotle, or the place which they occupy in the natural or logical inquiry of the mind after knowledge. Whatever Andronicus may have intended, posterity have adopted the latter interpretation, and, ever since, those abstruse inquiries have borne the title of *meta ta physica*, or *meta-physica*, which has been readily Anglicized into metaphysics.

tions, and the exalted purity of their rationalism, or *spiritualism*, as contradistinguished from *materialism*, much more nearly resemble Plato than does Descartes, or perhaps any other character either in modern or ancient times.

The points in which Bacon and Descartes respectively resemble Aristotle and Plato are, in fact, their proximity to each other in point of time, their pre-eminent distinction as exponents and representatives of the philosophy of their respective times, and the like general influences which they respectively imparted to the philosophy and general ideas of their respective times—Aristotle and Bacon having both imparted to their respective ages the spirit of *materialism*, with its cognate metaphysical tendency to *sensationalism*, while Plato and Descartes both deeply tinctured their times with the spirit of *spirituality*, or pure *rationalism*, with its cognate metaphysical tendency to *idealism*.

It may be also worthy of remark, as a matter of curiosity, however, rather than of any practical importance, that the Aristotle and Plato of the modern age, (as we have respectively styled Bacon and Descartes,) appeared at very nearly the same distance from each other, in point of time, as did the Aristotle and Plato of antiquity, but in reverse order—the Plato of antiquity having been born 46 years before its Aristotle, or 430 years before Christ, while the Plato of modern times was born just 35 years after its Aristotle, or 1596 years after Christ.

It is important, in this connection, to remark, that, in personating the Plato of the modern age, Descartes does not answer well as the representative of his nation, or embodiment of its characteristic traits, notwithstanding we have styled him the representative man of France; for France is decidedly more Aristotelian than Platonic in its tendencies, is decidedly *material* rather than *spiritual* in its general character, and *sensational* rather than *idealistic* in its metaphysical proclivities. Descartes is, in these respects, far more properly the representative of German than French ideas, while Condillac, the disciple of Locke, and legitimate offspring of ultra-Baconianism, with his extreme sensationalism, is the true representative of France in respect to metaphysical ideas.

But in this respect Descartes well represents France, and in its perhaps most peculiarly characteristic trait, that he was intensely *exact*, intensely *mathematical*, in the order of his mind—mathematics having been, indeed, his great forte, in which he made his most specifically valuable contributions to general science.

And this brings us to notice an important discrepancy between the respective characters of the Aristotle and Plato of antiquity and of modern times. The Aristotle of antiquity was not only great in his comprehension of the principles of fundamental philosophy, but also in his application of them to particular sciences, having instaurated logic as a science, inaugurated zoology, and made valuable contributions to political science, while Plato was great, though transcendently so, only in fundamentals, failing decidedly in the details necessary to systematize any science. On the other hand, the Aristotle of modern times, (or Bacon,) though he discoursed with great ability about the fundamental principles of philosophy, miserably failed in all his attempts to make specific contributions to science, while the Plato of the modern age, (or Descartes,) not only discoursed with vast ability and profundity upon philosophy in general, but made important contributions to science in particular, hav-

ing contributed highly valuable specific ideas both in mathematics and metaphysics.

Of Leibnitz, the great representative man of the German race, and true High Priest of modern science, who was the junior of Descartes by just *half a century*, and of Bacon by *eighty-five* years, (having been born in 1646,) and who enjoyed the advantages of the philosophical writings of both Bacon and Descartes, as well as of his illustrious contemporary, (though senior by *fourteen* years,) Locke, and others, before he delivered the thoughts of his own transcendent intellect, it would be impossible to speak worthily in a transient review, like the present, of the most conspicuous magnates of the intellectual kingdom of the modern age. Yet after what we have already said of Bacon and Descartes, and of their respective affinities with Aristotle and Plato, we may find it the less difficult to do justice to Leibnitz in a few words.

We cannot well style Leibnitz either the Aristotle or the Plato of the modern age, as we have respectively styled Bacon and Descartes, for he was both combined. Whatsoever was truly great, either in Aristotle or Plato, in Bacon or Descartes, was pre-eminent in Leibnitz. In him the human intellect truly towered up. Leibnitz was indeed "Pelion on Ossa piled"—Bacon heaped on Descartes—Aristotle standing at full height on the shoulders of Plato, and looking far beyond the boundaries of the known into the realms of the unknown.

What Bacon aspired to do, and vainly strove to accomplish, Leibnitz accomplished apparently without effort—*he took all knowledge for his province*—thus verifying, to some extent, the questionable remark of Ruskin, in his recent pamphlet on Pre-Raphaelitism, that "no great intellectual thing was ever done by great effort; for a great thing can only be done by a great man, and he does it without effort."*

In mathematics, Leibnitz stood shoulder to shoulder with Newton, his great contemporary. In metaphysics, he overtopped Descartes, and dwarfed Locke. In general range of observation and scope of thought, he towered above Bacon, and threw him into shade, as some mightier Alp towers above and overshadows his lesser brother.

The most distinguishing characteristic of Leibnitz was, in fact, the universality of his genius—his wide range of observation and vast scope of thought, which fitted him pre-eminently to reign as *sovereign* in the dominions of science. Bacon aspired to this dignity, but with an order of mind not adequate to the position, and which frequently betrayed in him the marks of the *pretender*. But Leibnitz assumed the dignity as his legitimate birthright, and as "one to the manor born." Bacon, indeed, aspired to a dignity for which the *race* to which he belonged are not well qualified. It is not in *contemplative*, but *administrative*, talent that the Anglo-Saxons particularly excel. In fundamental philosophy Germany reigns over the present age—Anglo-Saxondom in the practical arts of industry, in statesmanship and war. It is to the Anglo-Saxons

* This rather pernicious, as well as questionable, remark of Ruskin, we shall not attempt here to criticise. Like many piquant epigrams, it has its points of truth, which tend to obscure, or throw into shade, its more important points of error. Doubtless, the greatest conceptions of men, whether as poets, philosophers, or inventors, come unbidden, and without effort, from the "vasty deep" of the intellectual universe; but to systematize them, to bend them into shape for practical uses, is generally the result of effort, often protracted and laborious. In short, though it may be true that no great intellectual thing was ever done *by* great effort, as its chief efficient cause, yet it is equally if not still more true, that no great intellectual thing of extensively practical utility was ever done *without* great effort.

that we must look for the Cromwells and Washingtons of humanity; but the Leibnitzes and Humboldts come from Germany.

It was in the prolific and commanding intellect of Leibnitz that were first matured, on a large scale, those seeds of thought which have since developed and expanded into the grand conceptions of Kant, Fichte, Schelling, and Hegel. It was in Leibnitz that we find the first clearly defined phototype of Humboldt. Yet, in vastness of intellectual compass, Leibnitz far excelled Humboldt, though less of a mere scholar in philosophy, or man of detail in positive science. Humboldt reigned only in the physical kingdom of universal science—Leibnitz alike in the physical and psychological. Humboldt and Schelling must alike pay homage to Leibnitz as their rightful master. To his transcendent intellect the realms of matter and of mind alike disclosed their deepest mysteries—the deepest, indeed, that any human intellect can ever hope to fathom. Before his stupendous powers of *analysis*, the universe was resolved into its *elementary monads*, the more inert and stupid of which, before the sublime *constructiveness* of his genius, segregated into all the manifold forms of *matter*, while the more active and sensitive were developed into the thousand-fold manifestations of *mind*, *spirit*, *God*.

These three extraordinary men, Bacon, Descartes, and Leibnitz, may be regarded not only the great representative men of their respective nations, or *races*, but also of the age, or epoch of philosophy, to which they belong. These were the three great commanding and prolific eminences, in the intellectual stratification of modern society, on which the seeds of thought, peculiar to the present age, were first extensively ripened, and from which those seeds have been scattered far and wide over the modern world, which, falling upon the like congenial soil, have yielded the vast and teeming harvest of ideas which render the present age illustrious.

Of these three great representative men of the present age, (Bacon, Descartes, and Leibnitz,) it may be fairly claimed, that Bacon is, more peculiarly that either of the other two, the representative man of the age, although he was decidedly their inferior intellectually, or at least in the purely rational powers of intellect. For this distinction, indeed, Bacon is indebted to his *race*, or rather to the fact that his race, the great, rugged, stern, indomitable, practical, matter-of-fact Anglo-Saxons, have given character to the age, have so impressed their leading characteristics upon the age, as to render themselves the *great representative race* of the age; so that Bacon, by being the representative man of his race, becomes, *ipso facto*, the representative man of his age.

And this brings us to remark upon the distinguishing characteristics of the present age. This is a highly important consideration, now that we are about to enter upon the consideration of the sociological theories and systems that have been developed during the present age. For as the character of the soil determines that of its vegetation, so do the fundamental characteristics of a nation, race, or age, determine the character of its ideas, and shape the course of its destiny.

The distinguishing characteristics of the present age, or among the most prominent of them, are its greater comprehensiveness of thought than any previous age has manifested, its larger infusion of ideas, and the diversity and intrinsic superiority of its nationalities or races.

I. *As to the greater comprehensiveness of thought, which distinguishes*

the present age. This is conspicuously manifested in the aspiration of Bacon to take "all knowledge for his province;" in the vast scope of thought which has been displayed by the German metaphysicians, in their daring attempts to solve the whole problem of the universe; and in the disposition which has been extensively manifested, though chiefly among German and French philosophers, to realize the idea of Bacon, that the tree of knowledge is one and indivisible, and that "all partitions of knowledge should be accepted rather for lines and veins than for sections and separations." It should be obvious enough that this greater comprehensiveness of thought, which characterizes the present age, is highly favorable to true discovery and real progress in knowledge, since nothing is more conducive to correctness of thought than comprehensiveness of thought.

II. *As to the larger infusion of ideas, which distinguishes the present age.* This is discernible in the Inductive method of inquiry, which has been extensively infused into modern reasonings, in addition to the Deductive, (and upon which we have already dwelt at sufficient length,) and in the introduction of the religious element, *or the idea of a Divine right*, which has mingled, to a very important extent, in modern discussions, especially those of a sociological bearing. This is indeed one of the most distinctive characteristics of the present age—the large infusion of *the idea of right* in the general current of its thoughts. In no respect, perhaps, will the discerning student of the distinguishing characteristics of different ages of human development, discover a more marked or more important and fundamental difference between ancient and modern times, than in this. It is true that, in all ages of the world, the idea of *right*, as contradistinguished from mere expediency, and from the mere arbitrary caprice of superior power, has been recognized to some extent; but that recognition has been feeble in former times, and in a great measure restricted to the philosophical portion of mankind.

The great prominence which the *idea of right* has received in the present age, may, without question, be attributed mainly to Christianity. For although the idea undoubtedly existed before the time of Christ, as did the Inductive method of reasoning before the time of Bacon, yet it was unstable, unsettled, and floated vaguely in the minds of men. In short, as Bacon *crystalized* the Inductive method, it may, with still greater force and propriety, be said that Christ has *crystalized* the idea of a Divine right in human affairs. If, indeed, this justly revered character had achieved for mankind no other good than this, his life and death would have been of incalculable benefit to the race. For whatever of truth there may be in the sublime idea of Pope, that "whatever is is right," and however true it may be that, in the higher sphere in which the gods move, and some philosophers, the distinctions between good and evil have no existence, and all things are absolutely right, yet in *this lower state* in which men live, and move, and have their being, there is, beyond all doubt, *a right*, as contradistinguished from *wrong*, and which it is of great importance to men that they should recognize and strive unceasingly to realize.

III. *As to the diversity and intrinsic superiority of the nationalities or races of the present age.* This is, of all the distinguishing characteristics of the age, beyond all question, by far the most important, as it is the most fundamental and comprehensive. It has been remarked by a late

writer, with a justness of perception which it has been rare to witness hitherto, that "all history, in its ultimate analysis, is a history, not of kings and laws, but of races."* Bearing in mind this profound and eminently just observation, we shall be the better able to appreciate the vast advantages which the present age derives from the diversity and inherent superiority of its *races.*

In the first age of philosophy and civilization, although there were three distinguished races, the Egyptian, Grecian, and Roman, yet they did not flourish together, or co-exist in the vigor of manhood, Egypt having declined before Greece attained its full development, and Greece, in like manner, before Rome. In the second age, the Arabians were the only distinguished race. But in the present, or third age of philosophy and civilization, there are three distinguished races, all flourishing together, and all enjoying, at the same time, the vigor of intellectual manhood, the Germanic, French, and Anglo-Saxon; and in addition to these predominant races, the Scandinavian and Italian. These three predominant races, the Germanic, French, and Anglo-Saxon, may be regarded as the three grand divisions of the great central column, while Scandinavia and Italy may be respectively considered as the right and left wing of humanity, as it is at present displayed, on the great field of creation, to do battle for the truth and scientific discovery.

Each one of these three predominant races, moreover, may be regarded as intrinsically superior, both intellectually and morally, to any other race that has preceded them, unless, indeed, we should except the Grecian. Nor are the Scandinavians or Italians to be despised, or lightly regarded, as contributors to the great intellectual force that is now operating in the field of science; for Scandinavia has contributed Swedenborg and Oxienstern, and Italy its Dante, Angelo, Campanella, and Macchiavelli.

Each one of these three predominant races, moreover, seems to be endowed with a peculiar genius, or order of talent, which peculiarly fits it to blend and harmonize with the other two, so as to give to all three one homogeneous, consistent, and united character, thus illustrating, in the intellectual structure of the present age, the grand *formula* upon which the universe, and every integral part of it, seems to be organized, of "Trinity in Unity." Germany is metaphysical, France mathematical, Anglo-Saxondom practical. Germany is profound, France exact, Anglo-Saxondom efficient. Germany cogitates, France experiments, Anglo-Saxondom executes. Great, earnest, deep thinking, oracular Germany utters her grand oracles, like voices from the unfathomable depths of creation; subtil, ingenious, skillful France analyzes and dissects them; grave, thoughtful, cautious Anglo-Saxondom passes judgment upon them, and decides how far they may be relied upon or turned to useful account, either in the speculative or practical sciences. In short, Germany is the great Delphic Temple of the present age, where the high priests of nature, the German philosophers, give out their obscure but deeply significant oracles; France is its great polytechnic school, with vast laboratory and experimental apparatus; while Anglo-Saxondom is the great practical, efficient *work-shop* of the age, with its sturdy mechanic-kings, trade-princes, and State-philosophers.

* See Harpers' Magazine for May, 1856, article on "The Rise of the Dutch Republic."

While remarking on the distinguished nationalities or races of the present age, allusion should not, of course, be omitted to the great Russian nation, or the Slavonic race, of which it is the great embodiment. It is difficult to determine what are the precise relations of this race to the age, the more especially as their character has not as yet been fully developed. This much, however, we may safely venture to say, that they are so essentially different from the three predominant races already noticed, as to constitute *an antagonistic force* in the sociological system of the present age, and so that, considering this triune force, of the Germanic, French, and Anglo-Saxon nationalities in its unitary character, and designating it, as we may well enough do, the great Teutonic element or force of the present age, the Slavonic race will constitute the other and opposing element or force, thus illustrating the grand *dual* principle, which, not less than the "trinity in unity" principle, seems to pervade creation, and is ever to be detected in the sociological, not less than in the physiological and astronomical, system of the universe.

The Slavonic element in modern society may be said to be related to the Teutonic, as the Roman element, in ancient society, was to the Grecian, and if this element should overrun Europe, as it threatens to do, and superimpose upon the present Teutonic *stratum* of European society a *layer* of Slavonic *material*, civilization in the present age, unless, indeed, it should be rescued from that fate by America, would experience a depression and deterioration similar to that which was occasioned by the superimposition of Roman on Grecian civilization in a former age.

It was, doubtless, with a profound appreciation of the great vital antagonism between the Teutonic and Slavonic races, that Napoleon the First, who was an eminently sagacious observer, not less than illustrious actor, made that famous remark, so often since quoted, "In a half-century, Europe will be Republican or Cossack." He would have spoken with more scientific precision, if not more philosophical profundity, though to the same result substantially, had he said—*it will be Anglo-Saxon or Cossack.* This Anglo-Saxon family, into which the whole destiny of the Teutonic race seems destined to merge, is the true antagonist of the Slavonic race. As goes the battle between these two races, so goes the character of civilization, the cause of science, and the general destiny of humanity for many centuries to come.

With these very general remarks on the different nationalities or races now most prominently developed on the surface of human society, we must take leave of the more peculiarly *historical* method which we have hitherto followed in our review. In contemplating the vast field upon which we are now about to enter, of modern ideas, theories, and speculations in Sociology, it would be preposterous to attempt to consider them in detail, or with any special reference to the historical order of their development, or with any other than very slight regard for the persons to whom they may be attributable. We must, in short, totally abandon the *analytical* method, and adopt the *synthetical.* Instead of considering different nations or races in detail, with a view to extracting their peculiar ideas in Sociology, as we have hitherto done, we must henceforth seize upon the ideas, without any regard to the time, or place, or manner of their development, in doing which we shall strictly conform to the order of synthetical classification which we have heretofore laid

down,* and in which we have regarded all sociological theories, or ideas, as belonging either to the Political, Politico-economical, or Malthusian schools. Our review, which has been heretofore more peculiarly HISTORICAL, becomes henceforth more peculiarly CRITICAL.

Art. II.—VALUATION OF LIFE INSURANCE POLICIES.

NUMBER V.

To determine the true value of a life policy, we must have correct rates of mortality for every age of life. The nearest approximation to this is to be obtained by an average of the best tables. In making this average we shall exclude all the early tables that were founded on deaths only, because the hypothesis of a stationary population, or one increasing in geometrical progression, by which the numbers of the living were obtained, is too uncertain and unreliable for the determination of this essential element in the rate of mortality.

We must also exclude all those places where the mortality is known to be excessive because of climate, local peculiarities, or antiquity of observations. Our offices do not insure at their regular premiums south of the thirty-fifth degree of latitude, and as this corresponds to the forty-fifth in Europe, following the isothermal lines, we shall exclude Italy, Austria, and the south of France from our average. The depressing effects of cold do not seem as important as the malarious influences of heat. England has a lower mortality than France, and even in Norway the chances of living are as good as in Hanover or Prussia.

It is generally believed there has been a great improvement in the value of human life since the seventeenth century, but as the lowest mortality of any of our tables is in the Carlisle, where the observations were made about 1780, we must not confine our inquiries to the present century. The tables of Mr. Finlaison seem to show that some improvement has taken place between his earliest and latest observations, as appears by the following comparison:—

Rate of mortality at the age of	20.	30.	40.	50.	Av'age.
Tontine, from 1698 to 1788, (1,002 persons)....	.0169	.0212	.0230	.0301	.0287
From 1745 to 1826, (2,552 lives, 156 still living)	.0073	.0130	.0136	.0187	.0132
From 1773 to 1826, (3,557 lives, 1,564 still living)	.0106	.0110	.0119	.0145	.0120
From 1789 to 1826, (3,518 lives, 2,203 still living)	.0109	.0101	.0121	.0150	.0120
Farr's English, 1838 to 1844	.084	.0100	.0127	.0166	.0119
English registration, 1845 to 1854.....	.086	.0102	.0133	.0192	.0128

This comparison seems to show some improvement since the first half of the eighteenth century, but none in the last hundred years. The observations in Sweden indicate a change in the mortality since 1750, but if the returns be analyzed, it will be seen that the whole improvement is in early life, which does not affect the business of a life company. In Dr. Price's observations, which extended from 1754 to 1775, the ratio of the living to the dying was 1 in 35; in Milne's, from 1775 to 1795, it was 1 in 37; in Farr's, from 1795 to 1815, it was 1 in 37; and from 1815 to

* See No. II. of this review, in November number of *Merchants' Magazine* for 1859.

1835 it was 1 in 42. But if the children be excluded, these differences disappear. Here is the comparison:—

	1754–75.	1775–95.	1795–1815.	1815–35.
Average population over 15.....	1,510,602	1,904,158	1,622,650	1,818,244
Average deaths over 15.....	32,866	38,065	36,958	37,951
Ratio; one death in.....	46	50	44	48
Average population between 20 and 50	929,697	1,184,190	986,572	1,108,151
Average deaths between 20 and 50....	11,505	13,821	12,126	12,713
Ratio, or one death in	81	86	81	87

These returns show no change from the last century to the present, for in the forty-one years from 1754 to 1795 the deaths were 1 in 48, while from 1795 to 1815 they were 1 in 46, taking the whole population over 15. If the numbers between the ages of 20 and 50 be considered, the ratio for the first period is 1 in 84, and for the second, 1 in 84.

It would seem, therefore, objectionable to introduce any observations before 1750, but since that time no restriction appears to be necessary.

We have given in the last number the mortality for Carlisle. This being a large town, has been thought to be well suited to give the average mortality for an insurance company. In the larger cities the chance of dying is greater; in the country districts smaller; so that this affords a fair average for the whole country. The liabilities to mistakes and errors are supposed also to be smaller than for a whole nation. But in an old country, where the government is strong and respected, if a system of registration is carefully devised, and continued for a long period, the returns for a whole nation would deserve more confidence than for a single city. The wide extent of country, and the long continuance of the observations, increase the probability of a fair average.

We shall introduce into our average the observations of Sweden, Norway, Prussia, Hanover, Saxony, and England, with much confidence in our results. Of these the greatest weight should be given to England, because so many of our people are sprung from this stock, and race is supposed to have some influence on longevity. The Swedish observations seem, however, to be well suited for obtaining a reliable table of mortality. The country is not so far north as to be injuriously affected by cold; it is free from the malarious diseases of southern latitudes; it is inhabited principally by a rural population, with only one considerable city; the people are industrious, religious, and intelligent; the census is taken frequently, and the reports for each province scrutinized most carefully for errors; the returns of the deaths have been kept up for more than a hundred years; they have been made with great care and labor; the population is large; they have been exposed to every variety of seasons, of epidemics, of war and peace, of famine and abundance; surely such returns are entitled to much confidence.

The expectation of life in Milne's Swedish table is, however, nearly two years less than at Carlisle from 15 to 50, and continues below it to the end of life. It is more than a year below Dr. Farr's. The Swedish table of Dr. Price is still lower. But this is no good reason for excluding these observations, for we do not know beforehand whether the American mortality will conform most to the English or the Swedish experience. The probabilities are, that the deaths here will be greater than in either country. But whether this is true or not, the Swedish observations deserve much esteem by our life offices, and we shall not hesitate to allow

them considerable weight in our average. Dr. Price's is so old, and so near the limit where we have thought proper to exclude the observations, that we shall allow it less weight than the others, but we shall not feel at liberty to exclude it entirely.

In column second at the end of this article is Dr. Price's Swedish table, and in the third column is the adjusted rate of mortality. The influence of adjustment is very slight, as the large numbers observed and the quinquennial intervals of ages of the living and the dying have prevented any serious anomalies.

In column fourth is Mr. Milne's Swedish table, and in the next column its adjusted mortality. Both adjustments are made in the same way, by taking the geometrical mean of five successive rates as the true amount for each age.

In the next two columns are the rates of mortality for the next two periods of twenty years, obtained from the observations published by Dr. Farr in the sixth volume of the registrar general's reports. The mode of construction which we have adopted is that proposed by Dr. Farr, but in adjusting we have taken the mean of seven consecutive rates of mortality instead of five, because the observations being given for every five years, the adjustment by fives was not so satisfactory.

The next table we will introduce (column eighth,) is founded on the observations in Norway, published by Dr. Farr in the same volume of his reports. These were officially communicated, and seem to be made with care. They extend from 1800 to 1840, but the ages of the living are only given for the last census in 1840. The table we have constructed is, therefore, only for the last ten years, from 1830 to 1840. The mode of construction we have employed is the same we have used for the Carlisle observations, which, though more laborious, is more reliable than any of the methods proposed. The actual number of the living at each age being approximately obtained, the rates of mortality that will give the observed deaths for these numbers of the living are more likely to be correct than the rates that give the proper number of deaths in a stationary population.

The numbers of the living and the dying being smaller than for Sweden, and for ten years only, we shall give less weight to this Norway table than to the Swedish. The rates of mortality are, however, less, and nearer to Farr's.

The next table is derived from the observations of Mr. Finlaison, actuary of the National Debt Office in Great Britain. His report to Parliament was made in 1829, and gives the particulars of the deaths and ages of the government annuitants and of the nominees under the several government tontines, beginning as early as 1693, and ending in 1826. The facts are numerous, perfectly reliable, continued through a long series of years, and very carefully collected and arranged. Mr. Finlaison's results have not, however, been very much esteemed. They differ considerably from our best tables, and contain anomalies not found elsewhere. This arises, we think, from the selection of lives which would exert a greater influence in a tontine than in an insurance office. When a policy is first issued the insurer is known to be in perfect health. His physycian and the company's medical examiner, as well as the insured himself and his friend, unite in testifying to this fact. The rate of mortality at any particular age will therefore be very different among recent in-

surers and among those who have been long insured. The difference is still greater in the tontines, since many of these persons were chosen because of their vigorous health and their promise of long life. The mortality among such persons soon after admission would be very different from the average rate for persons of the same age taken at random or among the members of an insurance company. And this is sufficient to account for the irregularities in these tables. Besides, Mr. Finlaison did not use all the materials he had collected and published, but only a portion of them which he thought most worthy of confidence. His "tables of annuities, computed for the government," were founded only on "the Irish Tontine," "the Tontine of 1789," and that "of the Sinking Fund as observed to the end of the year 1822."

In the table we have inserted at the end of this article we have used all the observations of Mr. Finlaison, omitting only the first set, because founded on observations which were made before the middle of the last century; and the result is free from many of the anomalies of his tables, and everyway more worthy of confidence. We have adjusted it precisely in the same manner he did for his tables. Thus, we have added together his two summaries, Nos. 8 and 15, and subtracted No. 1, comprising in our result 21,350 lives, of whom 12,275 yet survived in January, 1826. We have then obtained the ratio of the living and the dying at each age, and adjusted these ratios by taking the geometrical mean of five consecutive terms, and then of each three of these results, following precisely the same method as Mr. Finlaison. To this mean two corrections were applied to get the rate of mortality at 15, 16, etc., because it is the ratio of the living and the dying at the average age of 15, 16, etc. The rates finally obtained are to be found in column ninth at the end of this article. At the earlier ages when the influence of selection is felt, the table is quite irregular. But for the older ages, when this objection disappears, the large number of lives, the exactness and accuracy of the observations, and the absence of all withdrawals, make the figures worthy of more confidence.

We have inserted in column tenth the mean of Finlaison's two tables, but we do not think them worthy of much weight in the proposed combination.

In column eleventh is to be found Farr's Northampton, which is very different from Dr. Price's, partly because it is founded on recent observations, but mainly because it has been properly constructed from the numbers of the living and the dying. Dr. Price, with great ingenuity, supplied the numbers of the living from the ages of the dying; but his hypothesis, though better than those made by his contemporaries, was not an approximation to the truth for the younger ages. Farr's is deserving of every confidence. As it embraces the mortality for seven years, from 1838 to 1844, among a population nearly as large as Carlisle; as the facts on which it has been based have been observed with care, and the table constructed on correct principles, it is worth nearly as much as the Carlisle table.

Age.	Price's Sweden.	Mortality adjust'd.	Milne's Sweden.	Milne's adjust'd.	Sweden, 1795-1815.	Sweden, 1815-35.	Norway, 1825-35.	Finlaison, 1743-1826. male,	Finl'son, fe.	Farr's North'n.
15..	5899	.0064	6098	.0061	.0066	.0052	.0055	.0071	.0064	.0056
16..	5862	67	6061	62	69	54	60	78	72	57
17..	5822	70	6023	65	71	56	64	86	80	59
18..	5782	73	5985	68	74	59	67	94	88	61
19..	5740	76	5945	71	77	62	69	100	96	63

Age.	Price's Sweden.	Mortality adjust'd.	Milne's Sweden.	Milne's adjust'd.	Sweden, 1795-1815.	Sweden, 1815-35.	Norway, 1825-35.	Finlaison, 1745-1826. male, fe.	Finl'son,	Farr's North'n.
20..	5697	79	5903	74	80	65	71	104	101	65
21..	5650	82	5859	78	82	69	73	105	110	67
22..	5603	85	5814	81	85	73	75	106	113	68
23..	5555	88	5766	85	87	76	78	106	114	70
24..	5507	90	5717	88	89	78	81	106	114	72
25..	5457	93	5667	91	91	81	84	105	113	74
26..	5407	97	5615	94	94	83	87	105	109	76
27..	5355	100	5562	97	96	86	91	105	109	78
28..	5301	104	5508	100	99	89	94	105	109	80
29..	5246	108	5453	103	103	92	97	105	109	83
30..	5191	112	5397	106	107	95	100	106	109	86
31..	5132	117	5339	109	111	99	102	105	110	89
32..	5072	121	5281	111	115	103	103	104	111	91
33..	5010	122	5222	113	118	107	104	103	112	94
34..	4947	123	5163	114	121	111	105	103	113	97
35..	4884	123	5104	116	124	116	105	105	115	101
36..	4825	123	5045	117	127	120	106	110	117	105
37..	4767	123	4986	120	130	125	106	115	119	109
38..	4709	127	4927	125	133	130	107	120	121	113
39..	4651	134	4868	131	137	135	108	123	123	117
40..	4591	145	4805	138	142	140	110	123	124	122
41..	4526	156	4736	145	147	146	112	123	124	127
42..	4458	167	4666	150	152	152	115	123	125	132
43..	4375	175	4596	154	157	158	119	123	125	138
44..	4297	178	4526	158	163	164	123	123	126	144
45..	4219	179	4455	162	169	171	128	124	126	150
46..	4143	180	4382	166	175	177	134	127	125	157
47..	4069	183	4309	171	182	184	142	130	128	164
48..	3997	191	4226	177	189	191	149	136	131	172
49..	3924	201	4163	185	197	198	157	145	135	180
50..	3846	215	4087	193	206	206	165	155	140	188
51..	3761	229	4007	203	216	215	173	166	152	196
52..	3674	241	3925	212	228	225	182	177	161	205
53..	3584	251	3842	221	242	237	191	188	172	213
54..	3494	260	3757	231	257	250	202	198	184	220
55..	3403	271	3671	242	274	264	216	207	197	228
56..	3312	280	3584	254	295	280	231	216	210	237
57..	3220	294	3492	268	318	298	249	226	222	246
58..	3125	314	3398	286	343	317	268	239	233	258
59..	3030	338	3302	308	370	337	293	254	244	292
60..	2930	365	3204	335	399	357	318	273	250	335
61..	2822	396	3098	366	430	377	345	294	259	388
62..	2708	426	2983	400	468	398	374	316	271	452
63..	2590	451	2862	437	496	418	404	338	291	529
64..	2472	478	2736	474	530	438	434	361	314	577
65..	2354	505	2608	513	566	461	464	387	337	624
66..	2236	538	2475	557	604	490	495	421	375	670
67..	2118	574	2337	605	646	525	528	459	404	714
68..	1997	618	2195	646	692	569	561	501	433	759
69..	1873	675	2050	705	740	623	597	543	468	801
70..	1749	740	1905	760	791	686	636	582	513	842
71..	1622	820	1761	817	846	750	674	620	555	882
72..	1489	903	1618	881	902	833	717	658	595	923
73..	1354	984	1475	943	960	911	762	700	635	962
74..	1214	1061	1335	1011	1021	990	811	746	679	999
75..	1084	1129	1199	1079	1088	1072	859	796	719	1039
76..	963	1178	1070	1148	1162	1160	909	852	752	1076
77..	848	1241	947	1220	1246	1256	958	928	833	1112
78..	748	1335	881	1296	1341	1364	1026	1012	929	1142
79..	648	1449	724	1380	1448	1485	1105	1105	1021	1175
80..	558	159	624	148	157	161	120	118	112	121

Age.	Price's Sweden.	Mortality adjust'd.	Milne's Sweden.	Milne's adjust'd.	Sweden, 1790-1815.	Sweden, 1815-35.	Norway, 1825-35.	Finlaison, 1745-1826.	Finl'son, male, fe.	Farr's North'n.
81..	468	175	538	158	170	175	182	124	122	124
82..	884	193	449	171	183	189	146	130	130	129
83..	309	209	372	184	197	203	160	137	138	139
84..	244	222	304	196	212	218	175	145	150	154
85..	189	233	243	204	226	232	187	155	157	179
86..	144	240	191	209	239	244	198	170	185	212
87..	109	243	150	214	252	257	207	197	209	249
88..	82	254	119	218	261	269	220	219	235	291
89..	62	275	94	224	270	282	232	239	262	335
90..	47	314	73	235	280	294	245	252	299	375
91..	33	369	56	251	294	309	258	263	347	414
92..	21	442	42	269	309	324	270	266	375	462
93..	11	490	31	289	324	340	280	255	404	518
94..	5	600	22	332	340	359	292	241	444	615
95..	2	669	15	361	357	380	319	234	480	725
96..	1	1000	10	427	378	403	348	233	560	1000
97..	.	...	5	536	404	431	414	242	660	...
98..	.	...	3	643	436	465	575	385	825	...
99..	.	...	1	1000	533	512	667	545	875	...

Art. III.—FORGERY.

The importance of the crime of forgery, and the confusion which it is capable of creating in the transaction of both public and private affairs, have in all time engaged the serious attention of the ministers of justice. Notwithstanding this, however, the arts of the forger have never received that attention, in an educational point of view, which the importance of the subject demands.

In the progress of civilization cupidity has very nearly attained the dignity of a science, and how to detect and how to avoid the arts of the counterfeiter has well nigh become a necessary part of commercial education.

Forgery, in law, may be defined to be the fraudulent making or alteration of any record, deed, writing, instrument, register, stamp, etc., to the prejudice of another man's rights. This broad field of operation is open to a great variety of means with the freest use of scientific principles. If we consult the records of this species of crime, we discover the arts of the forger to be contemporaneous with the advance of science. Indeed, the propagation of the truths of the science of chemistry, among all classes of society, seems not only to have facilitated the arts of the falsifier, but in some cases to have been available for obliterating the evidence of murder. The application of chemical processes in the perpetration of crime have, in some instances, demonstrated the greatest triumphs in that science; and had they been used for scientific purposes alone, they would have clothed their discoverers with imperishable honor. Photography—one of the brightest gems of modern chemistry—has achieved some of its greatest exploits in efforts to elude the "bank-note detector."

But in the adaptation of the latest truths of science, the forger never forgets the ruder methods of his art, now reduced to an unprecedented degree of perfection. The smooth erasure, the over careful preserva-

tion of important documents by the use of strengthening bands, inelegant blots, or over elegant penmanship, characterized by a great display of flourishes, are tricks of the trade as of yore; and when they are associated with scientific accomplishments, they are the more deceptive. The chemical agents most usually employed in forgery are muriatic acid, citric acid, oxalic acid, common salt, and other substances containing chlorine, and the chemicals of photography.

In view of the foregoing circumstances, the examination of suspected forgeries may be facilitated by dividing the processes into two classes, namely, physical and chemical.

I. Physical Examination.—In the physical examination of written instruments, semi-transparent spots or lines, strengthening strips or entire new backs, blots, heavy or rough lines, interlineations attested with ink of a different shade of color from that used in the main composition, or flourishes of penmanship, are all suspicious conditions. The forger, in order to hide the semi-transparency of an erasure, usually wears the paper in the line of it, by forced creasing, and then applies a strengthening strip or new back. "Worn out lines," or those which have been inserted in the place of others removed, are often mended in the same way. Torn edges or rents, as the effect, or instead of erasures, are usually repaired by patches, strips, or new backs. Various shades in the color of the ink may be the result of time only in old papers, or they may indicate the reaction of chemical agents in efforts to remove it. Irregularity in the written lines and roughness may be consequent upon a bad quality of paper, or be caused by washing the sizing out of the paper in an effort to remove the ink. Washing, also, may cause an apparent irregularity in the thickness of the paper, leaving spots, from which the sizing has been removed, more or less transparent and rough, and thus simulate or obscure other spots which have been erased. All writing paper, in the process of its preparation, is sized; that is to say, it has incorporated with it substances which hinder the penetration of ink or other fluids. When, therefore, the ink strokes are large, or spread into the texture of the paper, they indicate the tamperings of forgery. Where resin has been used for smoothing over an erased surface, the contrary effect results; the ink is but sparingly absorbed by the resin, the lines are fine and superficial, and of glossy appearance. Blots, too, may be the result of original composition in consequence of poor paper, of accidental moisture, of age, smoke, or scorching; it is important, therefore, to determine these conditions. In general, blots which are the result of badly sized paper, or of washing, are of circular shape, and present a regular fading shade of color from center to circumference. Blots, of brownish color and glossy, are usually produced by bistre or liquid-brown, and are indelible. Humidity, or moisture, which is liable to occur in papers not well cared for, or by accident, is equally liable to occur in any or every part of the paper. The destructive effects of humidity are sometimes counterfeited by the application of acetic or other strong acids, which more effectually destroy the ink by a partial or total destruction of the paper in the places to which the application is made; whereas mere moisture scarcely or not at all affects the texture of the paper, otherwise than by removing the sizing. Besides, the acids are usually applied in particular places—the usual temptation being to partially and not wholly destroy the papers subjected to this means of counterfeiting.

For the restoration of ink traces which have been made to disappear through the influence of moisture, *heat* is an available and reliable agent. A good way of applying heat for this purpose consists in placing the sheet to be examined between two sheets of tissue paper and subjecting the whole to pressure between two smooth surfaces of moderately heated iron. A still more effectual method, but requiring more care, is first to wet the papers separately in alcohol, then carefully place them as above, and apply the heated plates. A simpler, but more hazardous, plan, is to scorch the defaced document before a hot fire. Any of these measures, carefully applied, will ordinarily restore legibility to written instruments which have suffered no other damage than mere moisture. But if acetic or other strong acids have been applied, it is almost needless to state, the writing will not be restored, since their use involved a destruction of the paper, as well as the ink, in the places to which they have been applied.

II. Chemical Examination.—First on the list of the means applicable under this head, may be placed *distilled water*. By it we can easily discover whether erasures have been made and partially resized, or whether the paper has been rubbed with resin. For the performance of this experiment, the paper to be examined should be smoothly spread out on glass, the water added a little at a time, and carefully observed in its effects on the paper. If the sizing has been removed by erasure or washing, the spots will be indicated by the greater readiness with which they absorb the water; while if any places have been rubbed with resin these wholly fail to absorb water, and thus become equally manifest.

M. Chevalier (Dictionnaire des Alterations et Falsifications,) relates cases where not only forged words have been substituted, but the kind of pen indicated by the impression made in writing. In one such case the point of a metalic pen with a divided beak had been used, and pressed so hard as to scratch two lines in the formation of the letters; these lines were traceable by the ready absorption of the water, which was not the case in the genuine part of the instrument. And in another case a semi-transparent spot was discovered to have been written over with a stylet, as if for the purpose of avoiding the accident which led to the discovery made in the case related; and, in this latter case, the smooth single point of the stylet had the effect of so condensing the erased paper as to render the forgery manifest from a totally opposite effect, namely, the non-absorption of water in the line of writing, while the parts immediately contiguous absorbed moisture with great facility.

By distilled water we can also determine the nature of blots, or of blanks—whether they have been caused by the use of acid or alkaline substances, for the diffusion or for the removal of the ink. For this object the water should be applied in drops to the suspected places, and allowed to remain ten or fifteen minutes, and then removed by means of a *pipette*, and subjected to the usual chemical tests for acids and alkalies. To render this test more certain, the genuine portion of the writing should also be wet with the distilled water, for the purpose of discovering the acid or alkaline nature of the ink used in the original composition. For, if an acid ink has been used upon a paper containing a carbonate—such as the carbonate of lime or chalk, which is frequently used in the dressing of paper—the acid of the ink acts upon the carbonate and forms, with it and the iron contained in the ink, a ferruginous salt. This salt, becoming dissolved by the application of the distilled water, partially

destroys the sizing of the paper, and causes the ink lines to appear semi-transparent. In the use of water for these purposes, it is necessary to repeat the experiment many times. After having moistened and examined the paper for one purpose, allow it to dry, and repeat the experiment for another.

Alcohol.—In some cases where water has failed to satisfy the mind of the scientific inquirer in regard to the suspected use of resin in combination with other substances, for the purpose of obliterating erasures, the use of alcohol has solved the problem by dissolving the resin, after which the experiments with water may be repeated and verification rendered complete. Paper moistened with alcohol for this purpose may also be subjected to a pretty good test by being placed between the eye and the light. If semi-transparent spots appear in the written lines they are probably owing to erasures; and if, upon drying, the ink is found to be feebly impressed or blurred in these places, evidence of forgery may be considered complete. And it may here be remarked that those lawyers who use pounce, if there are any such, are liable thereby to destroy their own evidence of authenticity. It is somewhere recorded of Stephen Girard that a well recommended book-keeper once sought employment of him, and among other good qualities the applicant was specially commended for his extreme neatness in making erasures, and so filling them as to leave no indications of their existence. After proving his expertness in this particular, and confidently addressing himself to the great merchant, as if sure of the place he sought, he received for reply, "If I know it, I never employ anybody who uses pounce."

Test Papers.—These are best prepared from litmus, a peculiar coloring matter obtained from *Roccella tinctoria*—Spanish orchilla—a small dry lichen, chiefly obtained from the west coast of Africa and neighboring islands. A strong solution of litmus, fit for dying test paper, may be made by triturating one part of litmus with six parts (by weight) of water, gradually added, and then boiling the mixture for half an hour. Unsized white paper, dipped in this solution, immediately acquires a deep purple color. And thus prepared, it should be carefully dried and kept in well closed vessels, secluded from light, ready for use. If moistened with an acid, this purple paper is immediately changed to red; if moistened with an alkali it is changed to blue. Some strips may be preserved in a reddened state by moistening the purple paper in a weak solution of acetic acid, and these, when applied to an alkaline solution, are immediately restored to their original purple color or changed to a blue—depending upon the strength of the alkali. In testing for acidity, it is useful to expose the purple paper for a few seconds to the vapor of ammonia just before applying it; this has the effect of intensifying the blueness, and rendering it more sensitive to the presence of an acid.

Ordinarily, test papers are preserved in narrow slips, but for the examination of written instruments or bank notes suspected of forgery, it is necessary to have whole sheets of test paper, or at least sheets as large as the papers to be examined; and the manner of using them is this:—Take a sheet of the purple test paper of the same size as the suspected document, moisten it with distilled water, and carefully spread it out on a sheet of white tissue paper; then lay upon it the paper to be examined, the test paper being between the tissue paper and the suspected document. Thus arranged, put the whole together between plates of glass, and subject them to pressure for about an hour; by the end of this

time the test sheet on removal will be found to vary in shades of color according to the preponderance of acids or alkalies with which it has been in contact, and thus will be indicated whether the ink of the suspected instrument has been subjected to manipulations for the purpose of removal. The presence of acids or alkalies having been thus ascertained, the document may then be submitted to a further examination by dissolving out the agent used, in the manner before directed—by adding distilled water in drops, and subsequent removal by the pipette; and the identity of the substance established by chemical analysis. In the performance of this experiment, it frequently turns out that, in consequence of the presence of acids used in the manufacture of the paper, there is a *uniform* change of color in the test. This, however, being uniform, is no detriment to the value of the test, because of the increased potency of additional acids which may have been used, the test is correspondingly affected.

There are other valuable tests depending upon the well known qualities of ink. Ordinarily, ink is a metallic preparation, having for a basis a compound formed by the action of nutgalls on the oxide of iron. This compound chemically consists of the *tannate of the protoxide of iron*, and this substance, after a time, attains its maximum degree of oxidation, and takes on the brilliant black color peculiar to well-made ink. To increase this brilliancy, mucillage, gum, or sugar is sometimes added; and for given shades of color, indigo, logwood, or sulphate of copper; but the tannate of the protoxide of iron is the essential quality of good ink. The counterfeiter, being aware of this, seeks to abrogate the ink by such means as are least liable to detection, and which will incur the least likelihood of notice to his subsequent manipulations. Foremost among these means are certain strengths of the strong acids—muriatic, acetic, and oxalic, and chlorine; a chief object being to use these substances in such a state of solution as will effectually remove ink without affecting the texture of the paper. The difficulty of accomplishing these purposes is made manifest by the *certain* tests of experimental chemistry. It should be premised, however, that notwithstanding the certain qualities of well-made ink, the acids of nutgalls, which enter into its composition, sometimes take on destructive modifications; this is particularly the case if the ink has been subjected to a freezing temperature. The oxide of iron is then set free, and assumes its natural yellow color. Ink thus spoiled should never be used for drawing up writings of importance, because it continues to fade, even after being committed to paper, and is ultimately destroyed by time alone. This alteration is more or less rapid according to the good or bad preparation of the ink in the first place, and also according to the nature of the modifying substances which have been added to it; it may also be influenced by the quality of the paper upon which it is used.

In the examination of instruments of writing suspected of forgery, we have arrived at the conclusion that the object is three-fold, namely, the detection of the forgery, the detection of the means used, and the restoration of the instrument. These purposes are made apparent by what has gone before. But it now remains to demonstrate the utility of divers substances useful for all the purposes herein comprehended. At the head of these stands *iodine*. The best way of using this is in the form of vapor, which is easily accomplished by putting a few grains of the metal into a wide-mouthed vial, and subjecting it to a moderate heat. Iodine soon

evaporates on exposure to heat, and the paper to be tested by it can be so held as to allow the vapor of the iodine to impinge upon its surface. After this the paper may be left for three or four minutes, and then carefully examined. If the surface of the paper has not been touched or operated upon by any other substance, the iodine imparts a uniform yellowish or yellow-brown color, on every part of the surface exposed to its influence. If any liquid—water, alcohol, salt water, vinegar, saliva, tears, urine, acids, or alkalies—has been applied to the surface of the paper before its exposure to the vapor of iodine, the places to which such application has been made are indicated by the varying tints of color imparted by the iodine. Places which have been rubbed with pumice are indicated by a *bistre-brown* color, and those transparancies which have been repaired by the use of paste are of a bluish-violet tint; while all spots in the paper, from which the sizing has been removed in consequence of washing, wetting with alcohol, or the use of acids, show their places by the more or less varying shades, depending upon the nature of the substance used, and the effect it may have had on the texture of the paper. The place of forgery being thus indicated by the iodine, it may afterwards be treated with the appropriate chemical tests for ascertaining the exact nature of the substance used. *Photographs* subjected to iodine vapor, and subsequently treated by a solution of the cyanide of potassium, are completely destroyed.

Forgery, by means of chlorine and its preparations, may be detected by *nitrate of silver*. For this purpose, first dissolve out the substance used, and add to it a solution of nitrate of silver; if chlorine be present in any form, there will be a dense *white precipitate* of the chloride of silver.

Gallic acid, or the recently prepared tincture of nutgalls, sulphuretted hydrogen, ammonia, and the alkaline sulphates, are all useful agents for restoring the traces of ink which have been deprived of their color by chlorine or other substances. For this purpose, the paper to be operated upon should be carefully spread out on a smooth surface, and gradually moistened by the reactive, and its changes watched for. When the surface has been well moistened with one test, it should be allowed to dry, and it may be of benefit to let several days, or even weeks, intervene, before another is used. If no traces of ink appear, another may be tried, and so on, the process being repeated many times. Traces of ink have sometimes appeared in paper so treated, at long intervals subsequent to the experiment—evidently traceable to the influence of these agents.

Next to the knowledge necessary for the detection of forgery, it is important to know by what means forgery may be rendered more difficult, and less liable to be attempted in the outset. As long ago as 1825, the Ministers of Justice in France consulted the Academy of Sciences upon the best means for the prevention of numerous disasters, both public and private, consequent upon forgery. The commission charged with the examination of the subject, proposed two methods—1st. The employment of indelible ink. 2d. Stamped paper.

1. *Indelible Ink.* This name is only appropriate to those inks which are known to be easily taken up by prepared paper, and unalterable under the influence of prolonged washings, chlorine, acids, and alkalies. A great variety of samples purporting to answer these qualities were

submitted; but two only were approved of and recommended, and these were both compounds with the *Encre de Chine.* China ink is supposed to be made of the dried salts obtained by evaporating certain sea waters of that country, mixed with gums or glue. Another kind of China ink, equally indelible, seems to be made of a peculiar kind of lamp-black, (as if obtained by the combustion of a peculiar substance,) mixed with gelatine, precipitated by ammonia, and scented with musk. These were for a time adopted by the French Government, (1831,) but their use was attended with such difficulty as to cause their early abandonment.

2. *Stamped Papers.* These were presented in great variety, containing various marks by stamp or composition, by which they might be distinguished, and purporting to be inimitable. None of these met the approval of the commission for State purposes, while several were adopted by banking houses and commercial companies. In 1848, M. Séguir informed the Academy that M. Grimpe had submitted to him a sample of bank note paper, which it was impossible to imitate, and in the same year, M. Dumas declared, in the name of the commission appointed on inks and papers of surety, that the paper presented by M. Grimpe was proof against forgery.

The manufacture of M. Grimpe's paper consists in a general vignette of both sides of the paper, with stars in relief, engraved under the microscope, and with the greatest exactitude. After adopting certain improvements suggested by M. Lemercier, the commission approved of M. Grimpe's paper, as offering the most perfect security for the purposes indicated, and it has gone into general use for banking purposes in France. In addition to this, the French Government has adopted a particular form and quality of paper for all documentary purposes, and this paper is secured by a stamp of the State as a guaranty against forgery.

Finally, as an additional security, certain substances, known as *sympathetic inks*, may be used as tests of genuineness, or for purposes of communication between persons liable to have their letters inspected. Sympathetic inks are substances employed for writing colorless lines, but susceptible of being rendered visible under the influence of heat or chemical agents. There are numerous substances of this character, and of such may be named the salts of *cobalt*, chlorine, acetates, and nitrates, mixed with one-fourth part of sea salt. These, when dissolved in water and written with, leave no visible traces upon the paper, but when the paper is slightly heated the tracings appear as if written with *blue ink*, and gradually fade out again on cooling. The salts of *nickel*, and certain of the salts of *lead* and of *bismuth*, and the juices of certain vegetable substances, may be employed in certain cases as resources of safety on papers liable to forgery, or for *interlineations*, under circumstances of necessary submission to surveilance, between parties in each other's confidence. The means of communication by sympathetic ink, however, may be turned to the most mischievous purposes; hence the detection of this means of intercourse is an object of no less interest to the ministers of justice than the more ordinary methods of counterfeiting; and it should be particularly taken into account in the examination of written correspondence between criminals and leagued bands of outlaws. The agents already described, particularly *iodine*, are, under ordinary circumstances, equally efficacious for the discovery of communications made by the use of sympathetic ink.

Art. IV.—OPIUM TRADE OF INDIA.

ORIGIN OF TRADE—PRESENT AMOUNT—POPPY—PROCESS OF MANUFACTURE—DEALERS—CHINESE PURCHASES—AMERICAN CAPTAIN—STEAM CITIDELS—GAMBLING NATURE—LARGE CAPITAL—USE OF OPIUM.

THE trade in opium has been one of the most important supports of the English government in India, as it has, in its incidents, had a most important influence upon the fortunes of China. A contemporary contains some interesting facts in relation to the circumstances of the trade, which is yet to have a great power over Chinese finances.

The Portuguese have the merit (if it may be so regarded) of having commenced the trade in opium between India and China. A hundred years ago it was of very trifling extent, and it was not until after the British East India Company made an adventure in 1773 that it gave promise of becoming a large trade. For many years the quantity shipped from British India did not much exceed 1,000 chests per annum, and even so late as the year 1820 it did not quite reach 6,000 chests, or about 900,000 pounds. Since that time, however, notwithstanding that the Chinese have latterly largely cultivated the plant from which it is produced, their imports of opium have rapidly increased. At the present date it amounts to between 10,000,000 and 11,000,000 pounds annually from India, beside a small amount from Turkey. The opium produced in India is the concrete juice of the white poppy. The capsules, when green, are incised with a knife, with three or more blades, which is drawn along them during the hottest time of the day; the white juice exudes from the wounds and concretes into opium, which is scraped off the next morning. If the night dews are heavy, or if rain falls in the interval, the quality of the drug is much impaired. The opium when collected is put into jars for transportation to the factories, where it undergoes a process to purify and prepare it for the market. About the end of March, and for some weeks after, these jars begin to arrive at their destination, and the contents are thrown into large vats, from which the mass is distributed to be made into balls. When dry, the balls are packed for sale in chests, in two layers of six each, with dried stalks, leaves, and capsules of the poppy plant. A chest of Bengal opium contains 160 pounds, and one of Bombay 140 pounds. The right to manufacture opium in India is monopolized by the government. The cultivation of the plant from which it is produced is rigidly restricted to two districts in the Presidency of Bengal, and a semi-independent native State in Western India. The Bengal opium is exported from Calcutta, and the other, known in the trade as Malwa opium, from Bombay. Calcutta and Bombay are the only ports from which opium is permitted to be exported, and the quantity shipped at the former is about double that at the latter. In the favored provinces in Bengal, where the poppy plant is allowed to be grown, the government servants grant licenses to cultivators of the soil to plant certain grounds, and afterward receive the juice from these people at a stipulated fixed price. As Malwa is an inland State, and has consequently no seaport, its opium pays a duty to the British Indian Government of about $60 a chest upon exportation from Bombay. At Calcutta, there are regular periodical auction sales, where the opium is sold at so much per chest to the highest bidder; and so careful were the East India Company to keep up the character of their brand in the market, that pre-

vious to sale all cases were opened by examiners appointed for the purpose, and any balls of opium that had the slightest appearance of impurity or decay were removed, replaced, and destroyed, and the box resealed. The purchasers at these auctions are of all races and countries. There may be seen the acute citizen of the United States, the portly native of Hindostan, and men in strange costumes, that have sailed in their own ships, and brought with them strange coin, from the ports on the shores of Iranistan and Arabia. You may see all creeds—Christian and Pagan, Mohammedan and Jew, and last though not least, from the importance of their presence, the brokers of English merchants who count their capital by hundreds of thousands of pounds sterling, and own lines of steamers and sailing vessels. When the opium is sold it is kept in bond by the government, and only allowed to be removed to the ship on which it is to be sent out of India under the care of a customs officer, who delivers it to another aboard, whose duty is to remain by the vessel till she finally proceeds to sea. At this stage of the traffic the government of India have finally done away with all interference or control over the article, and it may be taken wheresoever the owner may think fit.

If we were to credit the policy of the powers that rule in China, it would appear that it is their ardent wish entirely to abolish the use of opium among the 350,000,000 of people subject to their will. In that empire the importation of opium is by law strictly prohibited, and by existing treaties with America, England, and other countries, any of their respective citizens, or subjects, that may be unfortunate enough to be caught with the drug in their possession in Chinese waters, or on Chinese ground, are left entirely at the mercy of the Celestials to be dealt with by their laws. The actual practice of the trade, however, is very different from what we might suppose it to be from this regulation. There is in reality no more risk incurred in introducing opium into China than there is here in importing in a legal manner any of the articles upon which a duty is levied by the customs. To understand this more clearly, let us suppose that the government of the United States, with the double view of increasing the revenue of the country, and of affording their servants superior facilities for growing rich by extortion, were to pass a law and make treaties with foreign powers prohibiting the importation of tobacco into the Union, under the penalty of death to all who should be caught attempting to evade it, and at the same time privately permit the various collectors of customs to sell permits to those who were willing to pay highly for the privilege of landing and distributing the contraband article in safety. This supposition is a parallel case with the practice in China with regard to opium. It is quite an error to suppose, as is generally done, that the drug is smuggled or taken into China in open defiance of the authority of the executive power of the country. There are receiving ships carrying various flags—some American—well armed and manned with Malays and natives of Manilla, moored in convenient harbors on the coasts of China, and when a steamer or "opium clipper" arrives from India, it is into these storeships that her cargo is delivered, and receipts or certificates regularly granted which are sent to the owners of the drug wherever they or their agents may transact their business in China. In trade these certificates are considered unquestionable, and are transmitted from one to another with the greatest facility. Chinese dealers from ports on the coast, and the interior, when they happen to want a supply of opium, purchase scrip for what they require, and send their

own boats, or sometimes junks, or steamers of light draft of water, to take it from the receiving ship and convey it to whatever port they intend to land it. At this particular stage of the traffic, as a general rule, all foreign interference with the trade may be said to end, though a few "barbarians" are engaged in the very profitable business of distributing the opium in the country to those who directly retail it to the consumers. When a lot, of one or more chests, is purchased, and intended to be landed at some particular place, the purchaser makes arrangements with the Mandarin in authority there, and strikes the best possible bargain with him for his permission to transact the business unmolested. As may be imagined, there is no fixed rate for this permission, and it varies much with the necessities of the case, but is always the uttermost dollar that the greedy official finds it possible to extract. The captain of an American steamer, who had been employed by the native dealers for sometime in conveying opium from the receiving ships to Canton, and who had made several profitable ventures on his own account, came to the conclusion that he could do equally well without the assistance of the government people, and that he would pay no more black mail. Without letting any of them know his intention, he took a considerable quantity of opium aboard and proceeded to Canton, where he landed it without being questioned in any way. He returned, took in a second cargo, and proceeded up the river as before, but no sooner had he anchored his vessel above the European factories, than he was boarded by two large launches with upward of eighty Chinese soldiers and two inferior Mandarins to take possession of his ship. The captain, however, was not thrown off his guard by his former good success, but was fully prepared to receive his visitors, knowing well that should they get possession, both ship and cargo would be confiscated, and himself and crew left entirely at the mercy of the captors—or in other words, that unless a large ransom were forthcoming they must pay it with their heads. Steamers engaged in this trade, and in the somewhat more precarious one of carrying Chinese passengers, have strong platforms erected across the wheel-houses, where in other vessels a plank is usually placed, called the captain's bridge. These platforms are guarded by strong bulwarks, steering apparatus is fixed on them, the arm-chests, and usually carronades placed so as to rake the deck below fore and aft; the engine-room hatches are well secured with iron gratings, and means are provided for telegraphing orders to the engineer. It is, in fact, a little citadel from which the crew of a steamer can direct her movements long after her decks are in possession of an enemy. The captain, being on the alert, and having seen the boats with the soldiers coming, had mustered all hands in this little fort, except one left below to knock out the shackle-pin and free the vessel from her anchor, when all was ready. When the last man of the two boat-loads was on the deck, the engineer received his orders to turn ahead, and away went the steamer with the whole posse, who had been so certain of their prize that in their astonishment they made no attempt at resistance. The captain proceeded straight to the Portuguese settlement at Macao, some hundred miles distant, and brought up under the guns of one of their batteries, when he descended to the angry Mandarins, and expressed a hope that they would not take for any want of courtesy toward them his absence while he was attending to the duties of his ship. He informed them that the fare down was two dollars per head for themselves and attendants, and that when his claim upon them for that amount was satis-

fied, they had his permission to go about their business! The steamer had to remain at Macao till he made his peace with the offended officials at Canton; but that was not difficult when he paid the full amount which they considered themselves entitled to upon the former cargo, besides for what he had aboard, and a fine as a caution for his future conduct.

There is, perhaps, no other commercial business in the world that excels the opium trade in facility for making or losing a fortune. The total capital employed in it is very large; and some of the mercantile firms engaged in the trade are almost fabulously rich, and enterprising to a degree that would be thought rash elsewhere. On account of the great value and perishable nature of the drug, it has always been a matter of the first importance to employ the fastest vessels procurable in its conveyance from India to China. The transit, however, is now almost entirely carried on by means of steamers. Some few years ago, when all the boats on the line belonged to one steam navigation company, and their directors thought fit to raise the freight per chest from $14 to $15 50, two mercantile firms built at once, with their own capital, superior vessels to those employed, and started a line each in opposition. These steamers must have cost $300,000 each; and perhaps it would be difficult to find elsewhere merchants who could afford, without previous preparation, to withdraw such large sums from their working capital, and not even show the slightest appearance of inconvenience. Not long ago, a firm devised a plan for sweeping the opium market, that would be no discredit to the acquisitive ingenuity of Barnum. At the time of the operation they had a considerable stock of opium in China, beside which they bought largely in India, and loaded and dispatched two of their own vessels. Ships bound from India to China in the season of opium freights, to take advantage of the prevailing monsoon in the China Sea, always pass through the Straits of Malacca and Singapore, calling at the latter place, which is a sort of half-way house for them. There is a large Chinese population at Singapore, and of course a considerable demand for opium. When the two vessels in question reached that place, on their way to China, they found orders waiting for them to unload there, and sell their cargoes by auction without reserve. The quantity of opium brought by them was many times greater than the demand, and traders at that place were quite unprepared with funds for such an unexpected contingency. Besides, the very fact of a firm like that to which these cargoes belonged trying to force a sale, at any sacrifice, convinced the most skeptical that something dire was pending over the opium market—nothing less, perhaps, than free-trade in its production in India. When the cargoes were advertised, with a due notice of sale, those who held moderate stock of opium, suited to the straits markets, hurried forward sales so as to anticipate the other and realize what they could before the market became entirely glutted. The effect of this was that opium was to be had for a mere percentage of its original cost in India, and the private agents of those who had caused the depression purchased all they could get, and afterward bought in the two cargoes at a nominal price. While this was going forward at Singapore, the firm acted a like part in China, and forced sales with the same result. When news came from Singapore of the low prices ruling there, opium was, in more senses than one, a complete drug. Very few had foresight sufficient to retain their stocks, much less to purchase, and the private agents were again at work and bought till the market was swept and the opium had nearly all found its way into the

hands of the originators of the panic, who were safe from competition till the crop of the following season found its way to China. In due time the two vessels arrived safely with full cargoes from Singapore, prices went up higher than they had ever been known before, and some of the senior partners in the successful firm retired on splendid fortunes to their native land, which was generally supposed to lie in some latitude north of the river Tweed.

The principal use which the Chinese make of opium is to smoke it with tobacco, when it produces a languor said to be exceedingly pleasing. The evil effects of this have been generally very greatly exaggerated. It is only in its abuse, as with many of the good things of this world, that leads to the complete attenuation of frame and prostration of faculties that are said to characterize all who follow the practice. Hundreds of thousands of Chinese continue to smoke opium for the term of their natural lives without any apparent injury to mind or body. In the smoking saloons of Canton, opium is retailed to customers at its weight in silver; the metal is put in one scale and the drug in the other, and weight for weight exchanged. It will therefore be apparent that, in a country where money is of so much value, it is only the richer portion of the population who have means to carry such an expensive luxury to excess. There is no room to doubt that if the government of India abandoned the opium monopoly and allowed the drug to be produced freely all over Hindostan, that the Chinese consumption would thereby be greatly increased, as well as the injurious effects which it is said to occasion. Much is said, without any good show of reason, against the government of India for the part it performs in the trade. Indeed, some of those, in England and elsewhere, who are loudest in declaiming against the traffic, appear to be totally ignorant of the real bearings of the case. India derives a revenue of some $20,000,000 per annum, which is every cent extracted out of the pockets of the smokers, and the system so much abused actually assists to obstruct the demoralization of the Chinese. It would be as reasonable to censure the ruler of France for permitting brandy to be made in that country, and to say that he was demoralizing people in other parts of the world by laying such an export duty upon it as might raise its selling price to consumers to about $20 a gallon.

Art. V.—FINANCIAL HERESIES.

To the Editor of the Merchants' Magazine:—

The English papers, in commenting upon the recent failures in the hide and leather trade, are quite emphatic in denouncing "accommodation" notes as the cause of the disturbance. This is an old cry of the Bank of England—it is the cry of "wolf" by the wolf, or "stop thief" by the thief himself—in which other banks have joined, both in England and this country. All of them seem to have a dread of what is called "accommodation paper," as a peculiar sort of *kiting* which they suppose to possess some especial power of inflation, productive of disaster in monetary affairs. This is mere financial superstition; it is a holy horror of the element of their own existence, condemning their own cher-

ished principle of doing business. All promissory notes and bills are *accommodation paper*, precisely one and the same thing; and when discounted in bank, unless the proceeds are paid in real money at once, they are exchanged for the *accommodation paper* or debt of the bank; they are converted into *debt currency*, which, as it exceeds, when created, the natural volume of currency, is mere *kiting* that degrades the value of money, locally, causing a loss in the capital of the community invested in money, precisely like the loss to a merchant by the fall of price of the goods in his warehouses. The bank exchanges notes with its customer; no value passes; it is nothing but *kiting*.

The hide dealer buys 1,000 hides, amounting to $5,000, and gives his note for the same. What then? The hides and the note do not form separate values; they do not make $10,000 of property. The dealer's note is as independent of the hides, and as much in excess of them, as of any other portion of his property; and his hides are no more bound to pay the note to its possessor, whether bank or individual, than his cattle, or his corn, or any other capital he may possess. He creates no value by making his note, and there is no value in it; the value is solely in the property he holds to pay it with, and without which the note is but the defacement of the paper on which it is written. When the property passes into the hands of the holder of the note, the note is extinguished, but the value remains. The bank, therefore, holds no value or property in holding the note; it must part with the note to get possession of the *value*.

All debt exceeds value, capital, and wealth, both of the individual and of the community; and its quality depends upon the property in the possession or at the command of the debtor to provide the means of payment, whether the property was acquired when the note was given, or months or years before. The hide dealer may have no other property than the 1,000 hides to pay his note. What if the warehouse takes fire, and his hides are consumed? What becomes of the *reality* of the note, and where is its value then? It is the integrity and ability of the debtor which gives the sort of reality to a note that a bank or a creditor should desire; it is a lien upon his property none the less because of the length of time the property has been in his possession. Obviously the so-called "real" note of the hide dealer for $5,000, with nothing but the 1,000 hides to furnish the means of payment, is no more *real* than, and surely not as good as, the so-called "accommodation" note of the individual who holds $100,000 worth of property behind it; and the individual who grants an "accommodation note," so-called, holding a previously acquired property to protect it, does no more to increase debt or cause trouble or embarassment in financial affairs than he who grants his note for property obtained at the moment. There is no harm done by either note, if held to maturity or exchanged at any time for honest *money;* it is the operation of the bank that does the mischief, in putting mere debt into the office of money; in making a fresh creation of a currency of *price*, without the attribute of *value*, by giving bank debt instead of real money for the note. Promissory notes, given for goods purchased, merely postpone the payment and the use of currency or money; requiring it some months hence instead of to-day; and then, at the maturity of the obligation, the demand for money or currency, so far as this transaction is concerned, is just the same as it would have been to-day if the commodity had been exchanged for cash, and the business settled at once.

The party essentially accommodated in this business is the bank that gives its promise to pay on demand in exchange for the dealer's note, pretending thus to convert it into *money*, and making its whole support and profit out of the forbearance of the people—its creditors—who do not call for their pay, but hold pieces of paper, or bank balances at their credit, and *innocently pay*, instead of *receiving*, interest thereon for the indulgence they grant the bank. When its creditors demand their *money*, its debtors are called upon to pay *money* the bank never loaned, never had to loan, and necessarily has not on hand to meet its running demand liabilities: then comes the *crisis* that many writers call a "panic." It is such a panic as the wasted sufferer feels whose lungs are losing their power of inflation; it is no *panic;* it is the inevitable *crisis* of *death.*

It is therefore only the "accommodation" notes and debt of the bank, now deluding the easy credulity of the public, that need to be repudiated. The capitalist has no occasion to pry into the concerns of the honest trader to learn the origin of his "bills receivable." The dishonest trader may sell goods backwards and forwards, with or without removal, and present bills as vouchers, apparently as real as truth, that are as unreal as falsehood or a vision of the night; he merely deceives the devil if the bank believes him; for there can be nothing more unreal in its pretensions than the debt currency itself—this is speaking of the principle of the system, and not accusing its managers, who are no more responsible for its evils than the rest of the public who sustain it. The capitalist, or the bank, needs only to know the integrity and ability of the sureties for the loan. Whether the paper presented for the same be obtained for goods immediately delivered, or is merely borrowed for the purpose of obtaining the loan, makes not a particle of difference in the extent of the obligations, or in the financial affairs of the community; the only unreal thing being the fictitious currency created from debt without labor and without value. So much for the much-abused but innocent *accommodation paper.*

The second *heresy* is the notion that the bank compounds interest, and gains more by discounting short than long dated paper. That this notion should prevail among intelligent people, and even among bank directors, as it does, is peculiar evidence of the manner in which everything is taken for granted, without reflection, in this important business of creating and destroying currency and altering the value of money, which, more than any other business, needs the most careful investigation. It does not require even a slate and pencil to refute this weak notion. The bank deducts, in round numbers, $60 discount on $1,000 loaned for twelve months; this sum of $60 is reinvested as cash, which gains $3 60 more in discount for the year. Obviously it produces the same result to discount six notes at two months each for the sum of $1,000, making $10, and reinvesting 60 cents each time, only with much more accounting and trouble. It is not to be supposed that no accomplished merchants and bank directors understand this simple matter, but it is a very prevalent heresy, notwithstanding.

In exchange dealing, of course, the case is altered: if the bank can gain by charging exchange on each discount transaction, the shorter the paper and more frequent the transactions, the better it is for the bank, and the worse for the people.

The third *heresy* is not so obvious, and requires closer examination. It is that when the banks of any city discount notes and bills due and belonging to another city, the course of exchange turns against the former, and specie flows to the latter, *because the money owned in the former is loaned to the latter.* We have a case in point at this moment. The Boston banks aver, that the unprecedented expansion of their loans arises from discounting paper for New York that is owned and payable in New York, and *that* alone is the reason why Boston is sending specie to New York almost daily at this time, July 21st. This is very plausible, and at the first glance seems very reasonable, but nevertheless it is not quite true. The delusion is in the total misapprehension of the nature of money. Money is merely a portion of capital, like any other commodity, and goes, like other things, from where its value is less to where it is more; it is a claim upon capital, and not specially or merely money, that Boston has been lending to New York; money will not go to New York in consequence, unless it is cheaper in Boston than in New York; it follows the law of value in this, like every other thing possessing value in exchange. Hides, or hemp, or cotton goods, or capital in any other form, will go to New York when the commodity is cheapened in Boston, so as to be worth more in New York, and capital thus transferred, constitutes a fund to be drawn upon in making the bank loan to New York. Accordingly, we see that the Boston bank loans have been increasing during a dull business, locally, for a year past; and, especially during the last six months, the dullest of all, they have increased $5,000,000; but specie was not transferred to New York as the loan advanced; the reason is obvious; because specie was as valuable here as in New York, and capital, in some other and cheaper form, had directly or indirectly placed Boston funds in New York to supply the loan. It may have been received in returns on Boston account from foreign ports, or from the south or west of our own country, as well as in goods forwarded directly from Boston to New York.

But additional local currency has been created by the Boston bank loans; money has been thereby cheapened in its exchange value, and driven abroad, or it has been prevented from coming in. The value of all consumable things is maintained by consumption, under an enlarged supply, to a very great degree, because as their value declines, their consumption increases; so that their value or price never falls in proportion to the increased supply. But money is not a consumable commodity, and it is therefore uniformly cheapened by an increased supply; unless about ten-fold the equivalent value of other things is produced, simultaneously with the money, so that the relative exchangeable power of money and property may be steadily maintained, which is absolutely impossible with the vast supply of money, and the fitful addition of debt currency now flowing upon the commercial world. This debt currency is produced instantly, and without labor, by issuing a promise to pay; property cannot be produced without time and labor. As nearly all commercial transactions are made through debt and credit, the fictitious addition to the currency must have time to percolate through the exchanges before the effect is felt. As a purgative requires time to change the gastric juices and become digested, this unwholesome dose of fiction is at length ejecting money from Boston rapidly; not because of any loan to New York, more than to Boston dealers; but because the increase of bank loans has been

proportionally greater in Boston, and cheapened money below its relative exchange value in New York. Money, therefore, must continue to flow to New York in excess of its receipt in Boston, until one of four things takes place; either Boston must reduce her loans, or New York must increase hers; or Boston must supply more goods, or New York less goods to the common market, proportionally. The value of money being always relative to something against which it is exchanged, there must be more currency or less goods in New York to cheapen money there; or there must be less currency or more goods in Boston to enhance the value of money in Boston. Either of these four things will, after awhile, bring about an equation of exchange between the two cities, by equalizing the value of money, and nothing else will.

Whether the Boston banks possess very accurate information of the amount of Boston paper discounted in New York, so as to judge that they have loaned an excess to that city, is rather problematical; for there is a continual cross firing of this sort between the two cities; but it matters not; exchange will turn against Boston, and specie will be forced to New York, just as soon, and as inevitably, by discounting Boston paper in Boston, as by discounting the paper of New York. Similar *kiting* is common between the bankers and merchants of England and the United States, with of course the same result. If the banks of New York, Boston, Philadelphia, &c., increase their loans in domestic paper, they will as effectually turn the course of exchange against this country, and compel the shipment of specie, as by discounting bills owned and payable in London itself.

The fourth *heresy* is that the banks lose interest on their reserve of specie, and that the holding of specie is therefore unprofitable; so that they make a greater profit by holding only 10 or 12 per cent of specie to their demand liabilities, as is usual in Massachusetts, than 33⅓ per cent, the ratio fixed by law in Louisiana. This mistake Mr. Hooper pointed out in his recent pamphlet, and I demonstrated the same in figures in your May issue of this year. It is sufficient, therefore, to repeat, that the ownership of the specie is loaned in the bank notes and inscribed credits, and the bank gains interest on the same, accordingly. It is even more profitable to hold the larger proportion of specie, because the loans can be thereby maintained at higher figures, and consequently producing a larger income without additional cost.

There is no science that bears so immediately and so powerfully upon both the material and moral interests of society, as political economy, and no branch of this is so important as commercial finance; yet nothing is more crowded and obscured with error, and nothing is so utterly neglected by business men. The trouble with the hide and leather and shoe trade, both in England and this country, is not "accommodation notes," merely, but *converting debt into currency*, the destructive and ridiculous artificial *cheapening of money*, with the consequent *price* above *value* that can never stand. C. H. C.

JOURNAL OF MERCANTILE LAW.

DELIVERY OF COTTON.

We publish below, from the New Orleans *Delta*, the opinion and judgment of Judge EGGLESTON in the case of BUCKNER, STANTON & NEWMAN *vs.* DELANY, RICE & Co.

Buckner, Stanton & Newman,
vs.
Delany, Rice & Co., *et al.*
} Fifth District Court.

About the 6th day of March, 1860, the defendants purchased of the plaintiffs 980 bales of cotton for nine-and-one-half cents per pound, making a sum total of $40,520 44. The cotton had various planters' marks upon it, and several hundred bales were weighed on the 12th of March, several hundred bales on the 14th of the same month, and 144 bales were weighed on the 15th of the same month. The defendants were informed by the plaintiff by a letter of the 15th of March, that they would have the list of the cotton inspected, and requested their attendance.

Each party selected a broker to inspect the list, and on examination they rejected 188 bales of the list as mixed. The plaintiffs on the 19th of the month informed the defendants they would deliver the merchantable and unrejected bales, and would substitute 188 bales of similar quality in place of the bales rejected as unmerchantable. Two brokers selected for the plaintiffs 188 bales of cotton of better quality, and on the 21st March the plaintiffs sent a notice to the defendants to come forward and receive the residue of the list of cotton remaining undelivered, and if they failed to comply, they would sell the 980 bales, and hold them responsible for the loss and damages.

On the 28th March, 1860, the whole 980 bales, composed of that portion of the cotton sold, which was not rejected, and the 188 bales substituted for the same number rejected by the brokers, were sold at five-and-five eighths cents, which left a difference between the two sales of $3,732 15. It is for this difference, together with some incidental charges and expenses, that the plaintiffs seek to hold the defendants responsible.

The sale was one by sample of cottons of various grades and qualities classed, and at an average price of nine-and-a-half cents agreed to be paid per pound on each bale.

Conceding that the plaintiffs have succeeded in their efforts to establish a mercantile custom or usage existing in this city, which authorizes the vendor of cotton to substitute in the place and stead of bad cotton sold by him a like quantity of other cotton of good or better quality, still such a custom or usage, however firmly established among merchants, can exert no controlling influence over a legal tribunal, seeing that it is in opposition to an explicit and imperative precept of the Code, and both the parties have not tacitly or expressly given their adhesion or concurrence to it. Customs and usages of trades and occupations are never permitted to subvert the positive enactments of the legislative powers, or the clear expression of legislative will. The legislation of the law making department of the government is paramount to and supreme over the enactments of any body of men, however intelligent and respectable they may be in their appropriate walks and pursuits in life. (4 Rob. R., 385.)

The articles of the Code with which the custom conflicts are 2450, 2452, 2466, 2467, and 2518. These require the vendor to deliver to the vendee the thing or things sold, and give no authority to the former to put one thing in place of another. The case must repose upon legal principles applied to the special facts developed on the trial independent of all local customs or commercial usages.

The plaintiffs, as it appears from their petition, took back the entire lot of cotton sold by them to the defendants, and sold 792 bales of it, and 188 bales of the cotton substituted to the like number of bales rejected from the lot of 980 bales, originally sold, which made up the original 980 bales, and sold them, expressing their determination to hold the vendee responsible for the deficit in price, if any there should be. This resumption of the cotton by the vendors and resale of it, it seems to me, to be a dissolution and rescission of the original sale, and disable them from maintaining this action for any difference in the price produced by the two sales. For, if there had been a valid sale by them to the defendants, as they allege, and there was no resiliation of it, the vendors no longer possessing any title to the cotton, could sell and convey now to another.

They ceased to have any title which they could part with as it had passed from them to the vendees, the defendants therein. But this subsequent sale of part of the original and the substituted cotton established one of two things, either that there originally was no sale to the defendants, or that if there had been one, the plaintiff had subsequently annulled the sale, and resumed the title to and possession of the cotton.

The idea cannot be entertained for one moment that they wilfully and deliberately seized upon and sold the cotton of the defendants, their original vendees. Such a supposition would accuse them of injustice, not to say of a worse offence, which their high position in the commercial world repels.

There is, then, but one other conclusion to which the mind can be conducted, and it is this, that they revoked the sale, took the cotton back as owners or factors of the planters, and sold and delivered it, as such, to SPANGENBERG, the second vendee.

If they were not the owners, how came they in the possession of the cotton, which they aver they had sold and delivered to the defendants? If they were not the owners, how came it to pass that they sold and delivered it to SPANGENBERG? For the sale of a thing is the highest prerogative of ownership of a thing. It indicates, in unmistakable terms, the belief of the vendor that he is the owner of it, or is authorized by the owner to dispose of it.

I therefore infer, from the concurrence of the physical element of possession, or the judicial or civil element of sale, that the original sale was annulled and undone, and in consequence the plaintiffs have no legal recourse against the defendants for any deficiency resulting from the resale of the cotton. Will it be urged that the plaintiffs notified the defendants they would hold them responsible for a deficit on the resale which they intended to make? To this it may be replied, that when they took back the cotton and set aside the sale, all the parties were replaced in their primitive position, and things stood as if nothing had occurred. The plaintiffs were owners, or factors holding the cotton to sell to any one desirous of buying, and the vendees were free from any obligation to fulfill towards them. If the plaintiffs intended to attach as a condition to the annulment of the sale and the resumption of the cotton that they would sell it and hold the defendants liable for the deficit, before this could be done, and be made obligatory on the latter, they must have assented to it, and the testimony shows none.

They could not, by the action of their individual will, engraft such a condition upon the annulment and resale, and oblige the defendants in opposition to their will and without their concurrence.

The dissolution of a sale by the parties is a contract, and if I am correct in the hypothesis that the parties expressly or tacitly made one, the plaintiff could interpolate no clause upon it, nor add any stipulation to it, without the assent and will of the other party. But did the plaintiff sell the 980 bales said to be the defendants'?

From their own allegations it appears that they sold but 792 bales of the cotton of the 980, which were transferred to the latter, and to make up the 980 sold them, they took 792 of them and added 188 new bales, which were put in the place of the like number rejected by the brokers as unmerchantable. Where are the 188 bales of the old lot of cotton? They took possession of them, and what has been done with them? Unless the identical 980 bales sold to the de-

fendants were sold a second time, how can it be ascertained if any deficit exists between the two sales? The cotton sold to SPANGENBERG was not the cotton sold to the defendants.

The plaintiffs, in my opinion, have failed in making out a legal demand against the defendants, and must pay the costs of their suit. Other questions of high import arise in the case, but I abstain from their discussion and solution, as the suit is terminated by the decision of the question discussed. Judgment for defendants with costs. A true copy. [Signed]

H. B. EGGLESTON, Judge.

E. D. LOVETT, Deputy Clerk.

MARINE INSURANCE—BREACH OF WARRANTY IN MARINE POLICY—WHEN ONLY "DEVIATION" ALLOWABLE.

Before the New York Court of Common Pleas—General Term. Charles Day, plaintiff and respondent, *vs.* the Orient Mutual Insurance Company, of New York, defendants and appellants.

STATEMENT OF FACTS FROM PRINTED RECORD.—The policy on which the action is brought was a time policy on the schooner Alice Day, for one year from March 26th, 1856, at noon, to March 26th, 1857, at noon. It contained the following stipulation or warrant by the assured:—"Warranted not to use ports or places in Texas, except Galveston, nor foreign ports and places in the Gulf of Mexico."

The vessel insured, while the policy was in force, went to the port of Coatzacoalcos, in the Gulf of Mexico, "in violation of the warranty." "She returned in safety, and was destroyed by the perils insured against, at Apalachicola, on the 31st August, 1856."

The plaintiff had applied to the defendants for permission to use the port of Coatzacoalcos, and it had been expressly refused; the defendants, however, offering at the same time to cancel the policy and return the premium for the unexpired time.

She did use the port, and carried from it a cargo of mahogany. This port is a dangerous one, and the cargo objectionable. The jury found the fact that the vessel insured went to the port of Coatzacoalcos in violation of the warranty in the policy.

Judge BRADY delivered the following opinion:—The policy upon which this action was brought, was upon the schooner Alice Day for one year from the 26th March, 1856, at noon, to March 26th, 1857, at noon. It contained a warranty as follows:—"Warranted not to use ports or places in Texas, except Galveston, nor foreign ports and places on the Gulf of Mexico." By a subsequent agreement, 12th April, 1857, for the additional premium of one per cent, permission was given to make a voyage from New Orleans to Vera Cruz. The schooner went to Vera Cruz, thence to Coatzacoalcos, in the Gulf of Mexico, thence to Boston, and thence to Apalachicola, where she belonged, and was there destroyed by a storm. The plaintiff claims to recover, because the policy was a time policy, and the deviation occasioned by the voyage and to Coatzacoalcos, was only temporary and did not subsequently affect the risks insured against. For the first of these propositions we are referred to the case of the Union Insurance Company *vs.* TYSON, (3 Hill, 118;) but COWEN, J., states in the beginning of the opinion, "It is in the nature of the policy in question that it limits the vessel to no geographical track." It is impossible, therefore, to make out a defence on the ground of a deviation in the ordinary sense of the word. But, assuming the policy in question to be a time policy, the geographical track is declared and the voyage to Coatzacoalcos was a deviation and in violation of the warranty. The question which arises upon these facts is, whether the defendants are discharged by the deviation? There was no necessity for the deviation. It was voluntary, and discharged the underwriters. Their discharge does not depend upon any

supposed increase of risk, but wholly on the departure of the insured from the contract of insurance. The assured has no right to substitute a different risk. (Phillips on Ins., 109, 483; Robinsons *vs.* Marine Ins. Co.. 2 John. Rep., 89; Huet *vs.* the Phœnix Ins. Co., 7 Johns. Rep., 363; Robertson *vs.* the Coal Ins. Co., 8 Johns., 491; Duncans *vs.* Sun Fire Ins. Co., 6 Wend., 488; Maryland Ins. Co. *vs.* LeRoy, 7 Cranch, 26; Hartley *vs.* Buggin, 2 Doug. 39; Child *vs.* Sun Mutual Ins. Co., 3 Sandford. 26; Kettle *vs.* Wiggin, 13 Mass., 68; Coffin *vs.* Newburyport Mutual Ins. Co., 9 Mass., 436, 449.) In the case of Robinson *vs.* the Columbian Insurance Co., supra, the brig Ohio was insured from New York to the island of Teneriffe, and for an additional premium of two per cent, permission was given to proceed from Teneriffe to the Isle of Way and Bonavista, and at and from thence to return to New York. The vessel arrived safely at Teneriffe, but was refused permission to enter or land any part of the cargo until after performing a quarantine of forty days, because her bill of health was not certified by the Spanish Consul at New York. The master being unable to land his cargo determined to seek another port, and went to Madeira, which was the nearest port, where he arrived, landed, and sold the cargo. The vessel afterwards proceeded to the Isle of Way, and sailed from thence to New York. During her passage she met with very bad weather which much injured her, and sustained further injury by striking on a shoal near Great Egg Harbor, and finally arrived at New York, *per curiem*. "There was no necessity for going from Teneriffe to Madeira. It was sailing on a different voyage from the one insured. It was a voluntary deviation from the voyage mentioned in the policy. Nothing but necessity or apprehension of danger could excuse his departure from the usual and direct route to Bonavista." The judgment should be reversed.

HILTON, J.—Coatzacoalcos was one of the prohibited ports mentioned in the policy. and the plaintiff in express terms warranted against its use. The voyage there was voluntary, after the defendants had positively refused permission to go, and had accompanied the refusal with an offer to cancel the policy and return the premium for the time unexpired, so that insurance might have been obtained elsewhere.

But notwithstanding all this, the voyage was made. and there cannot be the slightest doubt that, had the vessel been lost, while absent upon it, the defendants would not have been answerable—and it is equally clear, both on principle and authority. that going upon it was a plain breach of the warranty contained in the policy, and put an end to the liability of the defendants as underwriters. (See Kettell *vs.* Wiggin, 15 Mass. 68.)

In contracts of insurance, a warranty is regarded as very much like a condition precedent. and which, if violated, avoids the policy, and no recovery can thereafter be had upon it. (Mead *vs.* Northwestern Insurance Co., 3 Seldon 530; Duncan *vs.* Sun Fire Insurance Co., 6 Wend. 488. 494; Westfall *vs.* Hudson River Fire Insurance Co., 2 Kern, 289. In the language of Mr. Justice JOHNSON in Maryland Insurance Co. *vs.* Le Roy, 7 Cranch, 26.) "The discharge of the underwriters from their liability in such cases, depends not upon any supposed increase of risk, but wholly on the departure of the insured from the policy of insurance." The law attaches no importance to the degree of such violation, or the consequences arising from it. and its materiality or immateriality signifies nothing, the only question being as to the fact of the violation, and when that is shown a recovery is precluded. DeHalm *vs.* Hartly, 1 term R. 343. Kemble *vs.* Rhinelander, 3 John cases, 134. Phillips on ins. 181, 211.

From these views it follows that going to Coatzacoalcos being a clear breach of the warranty, from that time the policy ceased to cover or protect the vessel, and her subsequent return in no way revived or restored the defendants' original obligation as underwriters. (See Westfall *vs.* Hudson River Fire Insurance Co., 2 Duer. 490, 496.)

I therefore concur with Judge BRADY, that the defendants are entitled to judgment.

COMMERCIAL CHRONICLE AND REVIEW.

BUSINESS OF THE MONTH—IMPORTS—EXPORTS—WHEAT—CROPS—LARGE WHEAT DELIVERIES—CORN—ELEMENTS OF DEMAND—EXPORTS AND PRICES FOR JULY—COTTON AND HARVESTS—SUPPLY TOO LARGE—NO SPECULATION—WEST SELLS ALL ITS SURPLUS—NO HOME DEMAND—RAILROAD SECURITIES—RATES OF MONEY—FALL IN VALUE—SPECIE—FOREIGN BILLS—SPECIE SHIPMENTS—CALIFORNIA BILLS—UNITED STATES MINT—ASSAY-OFFICE—CURRENT OF SPECIE—BANK RESERVE—BANK DISCOUNTS—REPRESENTATIVE VALUE—THE INFLATION OF PRICES—LEGISLATIVE ENACTMENTS.

THE business of the month has been large and on the whole satisfactory, although there are many who underrate it, as compared with the more sanguine anticipations that had been entertained. The imports at the port have been large, but less so than last year, but the accumulation in warehouse has been less than then. The exports of domestic produce from the port, as will be seen in the tables annexed to this article, have been unusually large for the month and since January, and these have, in addition to the considerable quantities of cotton that have been exported, comprised, in flour and wheat, 6,400,000 bushels of wheat, an excess of 5,000,000 over last year, and also 1,669,000 bushels of corn, an excess of more than 1,500,000 bushels over last year. In produce there has also been a considerable increase. This circumstance has grown out of the threatening aspect of the harvests abroad, and the now apparent certainty that the United States will be required to supply a large proportion of the importation into Great Britain. These are large every year, but in years of inferior crops they swell to a quantity equal to one-third of the whole wheat crop of the Union. The crops of the Western States are this year represented on all sides as enormous, as well of corn as of wheat, and the means of transportation are now so well diversified, and in such good working order, that there can be no drawback upon the deliveries, as there was in the years 1847-8, when every conveyance was taxed to its utmost to convey food to the seaports and Europe. The crop of wheat in Ohio, Indiana, Michigan, Illinois, Iowa, Wisconsin, Minnesota, New York, and Canada West, is unprecedentedly large. A Western authority makes the following estimate of the movement of the wheat crop, which estimate, so far as the Lake Michigan ports are concerned, is based on the full receipts of previous years. For Lake Erie ports the estimate is made from the movement already commenced, and from exports of previous years.

From August 1st to November 15th, exclusive of Sundays, is ninety days; for which time this prospective movement is estimated :—

Cleveland	1,800,000	Chicago.....	6,750,000	Green Bay....	135,000
Huron & Milan	270,000	Milwaukee....	6,300,000	St. Joseph....	72,000
Sandusky.....	900,000	Waukegan....	135,000	Canada West..	1,350,000
Fremont.....	270,000	Kenosha.....	180,000		
Toledo.....	2,700,000	Racine	270,000	Total bush..	22,077,000
Detroit.....	900,000	Sheboygan....	45,000		

This is a larger movement by 10,000,000 of bushels than has ever been exported from the Lake regions and Canada West, in any one year, from August 1st to the close of navigation.

The corn crop far exceeds in proportion the productive yield of wheat.

These large supplies augur low prices. There are, however, three elements fo r good sale: first, the European demand; second, the improved activity at the East in most employments, assuring larger means of buying food; and lastly, the drouth at the South, which has undoubtedly done great damage in cutting off the crops, and by so doing, involving the purchase of large home supplies, instead of sales in competition with the West. These are elements of a broad market for the Western produce, and of prices remunerative to the growers It is to be borne in mind that the West has little or no home market for its produce. That crowd of railroad builders, speculators, and emigrants that a few years since devoured the Western crops at high prices at the farm doors has disappeared, and now the whole surplus over the wants of the growers is required to find distant markets over railroads, rivers, and lakes. The latest news from Europe gave a higher impetus to the market, and would doubtless produce a more active investment of capital in that direction if the advices of large supplies were not as positive as those of a large demand. This may be illustrated in the exports and prices in New York city :—

	1859.		1860.	
	Exports in July.	Price Aug. 1.	Exports in July.	Price Aug. 7.
Flour.....bbls.	74,842	$5 30	222,748	$5 10 a $5 20
Wheat.....bush.	9,026	1 10	1,419,887	1 25 a 1 27
Corn.....	36,026	76	177,886	62 a 63

This large export of wheat this year left prices no higher than the moderate export of last year. The nature of the foreign demand is such as to stimulate much activity, but the supply takes from the market the hope of higher prices, and therefore the money market is not much influenced. The large cotton crop, followed by bad harvests, checks speculation in that direction. Usually when the English market opens strong for grain there is a strong West current for money that raises the price in New York rapidly. This does not this year make its appearance, although the rates have been higher during the month. The sales of crops on the part of the West will place in the hands of dealers ample funds for the purchase of goods; but those funds will not reach the magnitude of transactions that grew out of the expenditure of $100,000,000 per annum for railroads in the speculative years. The funds pass through the hands of a different class of persons. The hardy settler who raises produce expends from the proceeds cautiously, and the goods he requires in return must be of a substantial and staple character. The land and railroad speculators who made their paper fortunes in a day, spent recklessly and lavishly, and the goods they required were of an expensive description. This day is done, and the future growth of the West will be steady upon the proceeds of the crops. The railroads will have their business measured down to the quantities they can carry on the most direct and cheapest routes. This will be a more substantial business, but less flashy than the large revenues formerly derived from speculative passengers.

The restoration to marketable activity of the vast amount of railroad securities that have so long been dormant, would relieve the funds of many men long cramped for the want of them, and impart enterprise to the markets. The value of money during the month has improved ½ a 1 per cent on most descriptions of paper. The rates are as follows :—

	On call.		Indorsed.		Single names.	Other good.	Not well known.
	Stocks.	Other.	60 days.	4 a 6 mos.			
Jan. 1st, 1859.	4 a 4½	4 a 5	4 a 5	5 a 6	6 a 7	7 a 8	8 a 10
Feb. 1st.....	5 a 6	6 a 7	5 a 6	6 a 7	7 a 7½	8 a 9	9 a 10
Mar. 1st.....	4 a 5	4½ a 6	4½ a 5½	5½ a 6½	6 a 7	7 a 8	9 a 10
Apr. 1st.....	4 a 5	5 a 6	5 a 5½	6 a 6½	6½ a 7	8 a 9	9 a 10
May 1st.....	5 a 6	6 a 7	6 a 6½	6½ a 6	7 a 9	9 a 10	10 a 12
Jun. 1st.....	6 a 7	7 a 8	6½ a 7	7 a 8	8 a 9	9 a 10	10 a 12
July 1st.....	5 a 6	6 a 7	6½ a 7	7 a 7½	8 a 9	10 a 12	12 a 15
Aug. 1st.....	6 a 7	7 a 8	6½ a 7½	7 a 8	8 a 9	11 a 13	12 a 15
Sept. 1st.....	5½ a 6	7 a 8	6 a 7	7 a 7½	8 a 8½	11 a 14	12 a 16
Oct. 1st.....	5½ a 7	6 a 7	6½ a 7	7 a 8	8 a 9	10 a 12	12 a 18
Nov. 1st.....	5 a 5½	6 a 7	6½ a 7½	7½ a 8	8½ a 9½	12 a 15	12 a 18
Dec. 1st.....	5 a 5½	6 a 7	6 a 7	7 a 8½	8 a 9	9 a 10	12 a 18
Dec. 17th.....	5½ a 6	6 a 7	7 a 7½	7½ a 8½	8 a 9	9 a 10	12 a 18
Jan. 1st, 1860..	6 a 6½	6½ a 7	7 a 7½	7½ a 8½	7½ a 8	9 a 10	12 a 18
Jan. 15th.....	7 a 7½	7 a 7½	8½ a 9	9 a 9½	9 a 10	10 a 11	15 a 20
Feb. 1st.....	6 a 6½	7 a 7½	8½ a 9	9 a 9½	9 a 10	11 a 12	15 a 20
Feb. 15th.....	5 a 6	6 a 7	7 a 7½	7½ a 8	8½ a 9½	10 a 12	15 a 18
Mar. 1st.....	5½ a 6	6 a 7	7 a 7½	7½ a 8	8½ a 9½	10 a 12	15 a 18
Mar. 15th.....	5 a 5½	5½ a 6	6 a 7	7½ a 8	8½ a 9½	10 a 12	15 a 18
Apr. 1st.....	5 a 5½	6 a 6½	5½ a 6	6 a 6½	6½ a 7½	9 a 10	11 a 13
Apr. 15th.....	5 a 5½	6 a 6½	5½ a 6	6 a 6½	6½ a 7½	9 a 10	11 a 13
May 1st.....	5 a 5½	6 a 6½	5 a 6	6 a 6½	6½ a 7½	9 a 10	11 a 12
May 15th	5 a 6	6 a 6½	5 a 6	6 a 7	6½ a 7½	9 a 10	10 a 12
June 1st.....	4½ a 5	6 a 6½	5 a 6	6 a 7	6½ a 7½	8 a 9	9 a 10
June 15th	4½ a 5	5 a 6	4½ a 5	5 a 5½	5½ a 6	6 a 7½	8 a 9
July 1st.....	5 a 5½	5½ a 6	.. a 5	5 a 6	5½ a 6	7 a 7½	8 a 9
July 15th.....	5 a 5½	5½ a 6	.. a 5	5 a 6	5½ a 6	7 a 7½	8 a 9
Aug. 1st.....	5 a 6	6 a 7	5 a 6	6 a 6½	6½ a 7	7½ a 8½	9 a 10
Aug. 15th.....	5½ a 6	6 a 7	6 a 6½	6 a 7	6½ a 7½	8 a 9	9 a 10

There have been many efforts to advance the rates for the benefit of lenders, and it is a long time since the legal rate of money has been obtained for the best paper. The 4 a 6 months' paper taken in January and February, at 9 a 9½, was met with money 3½ a 4 per cent lower on the same description. In 1859 the reverse was the case. paper having risen as the season advanced. It is now possible that the crops will move gradually, and, instead of raising the value of money, only tend to diminish it. The shipments of specie have continued fair, or large, as compared with last year, since money is now here worth less than it was then. The rates of bills do not vary materially, as follows :—

RATES OF BILLS IN NEW YORK.

	London.	Paris.	Amsterdam.	Frankfort.	Hamburg.	Berlin.
Jan. 1..	9 a 9⅛	5.18¾ a 5.17½	41⅝ a 41⅝	41¼ a 41⅞	36½ a 36¾	73 a 73½
15..	8¾ a 9	5.21½ a 5.18¾	41½ a 41½	41½ a 41½	36⅝ a 36⅝	73¼ a 73½
Feb. 1..	8⅞ a 9	5.18¾ a 5.17½	41½ a 41½	41⅝ a 41⅝	36⅝ a 36⅝	73⅝ a 73⅝
15..	8½ a 9	5.18¾ a 5.17½	41⅝ a 41½	41½ a 41⅝	36½ a 36½	73⅝ a 73½
Mar. 1..	8⅝ a 9	5.17½ a 5.15	41½ a 41¾	41¾ a 41⅞	36⅝ a 36⅞	73⅝ a 73⅞
15..	8⅝ a 8⅞	5.17½ a 5.15⅜	41⅝ a 41¾	41⅝ a 41¾	36⅝ a 36¾	73½ a 73⅝
Apr. 1..	8⅝ a 8⅞	5.18¾ a 5.16½	41½ a 41⅝	41½ a 41⅝	36⅝ a 36¾	73½ a 73⅝
15..	8⅝ a 8⅞	5.16½ a 5.17½	41⅝ a 41½	41⅝ a 41¾	36½ a 36¾	73½ a 73⅝
May 1..	9½ a 9½	5.18½ a 5.12½	41½ a 41¾	41⅞ a 42	36¾ a 36⅞	73½ a 73¾
15..	9⅝ a 9⅝	5.18¾ a 5.13½	41⅝ a 41⅞	41⅞ a 42	36¾ a 37	73¾ a 73¾
Jun. 1..	9⅝ a 9¾	5.18½ a 5.12½	41¾ a 41⅞	41⅞ a 42	37 a 37½	73¾ a 73⅞
15..	9½ a 9¾	5.18¾ a 5.12½	41⅝ a 41¾	41⅞ a 42	36¾ a 37½	73⅝ a 73½
July 1..	9½ a 9⅞	5.13¾ a 5.13½	41⅝ a 41¾	41⅞ a 42	36¾ a 37	73¾ a 73⅞
15..	9½ a 9⅞	5.18¾ a 5.18½	41½ a 41¾	41¾ a 41⅞	36¾ a 37	73¾ a 73⅞
Aug. 1..	9⅝ a 9⅞	5.13¾ a 5 18½	41⅝ a 41¾	41⅞ a 42	36¾ a 37	73¾ a 73⅞
15..	9⅝ a 10	5.18¾ a 5.18½	41¾ a 41⅞	41⅞ a 42	36⅞ a 37½	73¾ a 73⅞

The full rates for sight bills obtained by many drawers causes a more active movement in specie, which has been as follows :—

GOLD RECEIVED FROM CALIFORNIA AND EXPORTED FROM NEW YORK WEEKLY, WITH THE AMOUNT OF SPECIE IN SUB-TREASURY, AND THE TOTAL IN THE CITY.

	1859.		1860.			
	Received.	Exported.	Received.	Exported.	Specie in sub-treasury.	Total in the city.
Jan. 7.....	.....	$1,052,568	.....	$85,050	$7,737,965	$25,600,699
14.....	$1,376,300	218,049	1,788,666	88,482	7,729,646	26,470,512
21.....	.....	567,398	.....	259,400	8,352,485	27,585,970
28.....	1,210,713	467,694	1,760,582	81,800	8,957,123	29,020,862
Feb. 4.....	.....	606,969	94,569	427,457	9,010,569	28,934,870
11.....	1,319,923	361,550	1,476,621	92,350	9,676,732	29,464,299
18.....	.....	1,013,780	.....	592,997	10,012,572	30,603,762
26.....	1,287,967	318,854	1,393,179	202,000	8,955,203	29,729,199
Mar. 3.....	.....	1,427,556	382,503	667,282	8,734,028	31,820,340
10.....	933,130	307,106	1,198,711	115,473	8,237,909	30,139,089
17.....	.....	870,578	152,000	429,260	8,099,409	31,271,247
24.....	.....	208,955	895,386	466,115	8,122,672	31,408,876
31.....	1,032,314	1,343,059	155,110	706,006	8,026,492	31,447,251
Apr. 7.....	.....	576,107	.....	310,088	7,562,885	30,162,017
14.....	1,404,210	1,687,104	1,146,211	630,010	7,714,000	31,640,982
21.....	.....	1,496,889	.....	241,503	7,531,483	30,764,897
28.....	1,723,352	1,680,743	1,455,337	1,774,767	7,668,723	30,848,532
May 5.	.....	2,169,197	.....	2,356,117	7,041,143	30,856,889
12.....	1,480,115	1,926,491	1,382,753	638,681	6,539,414	29,319 801
19.....	.....	2,223,578	.....	1,251,177	6,864,148	30,599,341
26.....	1,938,669	5,126,643	1,519,703	1,317,773	6,982,660	30,414,433
June 2.....	.....	2,825,972	.....	1,719,138	6,621,100	31,196,557
9.....	1,513,978	1,877,294	.....	1,542,466	6,620,622	30,406,203
15.....	.....	1,669,263	1,385,652	2,526,478	6,426,755	30,537,000
22.....	.....	1,620,731	.....	1,417,757	6,326,894	29,677,815
29.....	2,041,237	1,861,163	1,541,580	1,962,776	6,253,357	28,717,607
July 9.....	.....	1,398,885	... .	1,166,773	5,187,468	27,939,162
14.....	1,786,861	2,495,127	1,514,884	1,283,135	5,404,367	28,156,061
21.....	.....	2,030,220	675,290	1,624,280	5,432,789	28,876,433
28.....	2,145,000	2,344,040	.....	1,880,497	5,112,942	28,212 668
Aug 4.....	.....	1,284,855	988,676	1,739,259	5,559,922	27,638,011
11.....	1,860,274	1,505,389	1,006,283	1,357,198	5,732,534	27,312,274
Total.....	22,903,940	46,142,916	21,891,967	30,024,289	.....	.....

The receipts from California have been fair. There has been some opposition in the drawing of bills in San Francisco. The cost of shipping gold thence to New York is $1 55 freight, 20 cents State stamp, and $1 50 insurance, making $3 25 ; from this deduct 35 cents—the average value of insurance scrip—leaving $2 90 as the cost of the bill. But the bars sell nearly 1 per cent higher in New York than in San Francisco, which reduces the rate to $1 90, at which the bill will not leave a profit. The object in drawing cheap is to control the market. The mint operations have been as follows :—

UNITED STATES MINT, PHILADELPHIA.

	Deposits.		Coinage.			
	Gold.	Silver.	Gold.	Silver.	Cents.	Total
January.....	$209,000	$41,000	$1,024,563	$41,000	$24,000	$1,090,563
February.....	1,838,578	35,573	1,632,160	21,600	24,000	1,677,760
March	144,478	82,255	317,451	132,989	29,000	479,440
April.....	281,891	49,764	252,756	38,431	30,000	321,188
May.....	90,828	72,468	133,004	81,100	35,000	249,104
June.....	54,893	54,676	63,718	97,160	24,000	184,878
July	97,041	14,181	101,975	87,000	16,660	205,635
Total, 1860.	$3,527,706	$359,897	$3,425,627	$499,186	$182,660	$4,820,573
Total, 1859.	830,580	545,650	744,525	656,650	209,000	2,986,405

The deposits at the assay-office of New York have been as in the following table :—

NEW YORK ASSAY-OFFICE.

	Foreign.				United States.				Payments in	
	Gold.		Silver.			Silver.				
	Coin.	Bullion.	Coin.	Bullion.	Gold.	Coin.	Bullion.		Bars.	Coin.
Jan.	14,000	18,000	11,200	14,000	2,478,000	1,800	20,000		647,000	1,910,000
Feb.	5,000	28,000	6,500	24,000	951,000	....	7,500		932,000	90,000
Mar.	8,000	15,000	23,400	5,500	267,000	1,100	2,500		180,000	142,500
Apr.	8,000	32,000	14,500	10,000	183,000	3,700	3,800		187,000	70,000
May	11,200	20,800	25,500	18,000	176,000	7,000	16,500		230,000	45,000
June	12,000	19,000	10,000	4,000	147,000	1,750	2,750		158,000	38,500
July	9,500	18,000	12,800	8,000	159,500	1,200	3,000		140,000	72,000
Tot.	67,700	150,800	103,900	83,500	4,361,500	16,550	58,050		2,474,000	3,668,000
'59	63,000	74,000	283,980	51,900	2,197,600	12,900	30,720		2,179,000	851,100

These operations have been much in excess of last year in the matter of coin, and the export has been much less than last year for the seven months since January. It has reached only $28,000,000, against $43,000,000 same time last year. These figures indicate some recovery of the metals that flowed out so freely last year, since the receipts are in excess of them. The outward current last year, following the course of payments, drew large sums from the West, without much disturbing the aggregate on the seaboard. The amount held by the banks of New York is less than last year, when, indeed, the quantity was burdensome. The quantity of specie that it is safe to hold can never be subjected to arbitrary rules, as the legislators have so frequently attempted to do. The true means that the banks must depend upon to meet the claims upon them exist in their assets. The lines of discount, in a speculative year, necessarily embrace a vast deal of paper predicated upon inflated values and prices, and is far less safe than a larger quantity based upon lower and regular values. Thus a line of discounts of $100,000 might, in 1855, represent 6,000 barrels of flour. This year the same line would represent 20,000 bbls. If the line was raised to $200,000 this year, it would represent nearly double the flour it did in 1854, hence could not be called inflated relatively. To require the banks to keep more or less specie on hand, in order to avoid losses from unsafe paper, seems to be absurd, as in fact is much that legislators undertake to do. It would be surer for them to undertake a sort of "specific system," and confine discounts to barrels, yards, and tons, than to allow of the ad valorem mode of discounting, and then compel them to keep specie to meet the claims of depositors who never deposited specie with them. Most of the depositors lodge with the banks claims upon other parties, which the bank collects, seldom in specie. The depositor then legally claims specie, when, in fact, offset is all that is due him.

The import tables for the month show a decline as compared with the corresponding season last year, and the quantity entered warehouse is greater. The decline in the imports is mostly to be attributed to the lessened consignment of dry goods. That last year came in such quantities, and encountered such losses, as were not likely to be repeated, the more so, that the general war that then threatened seems to be subsiding into a confederation, whereof the Syrian expedition is the exponent. The decline in the imports for the month is $2,404,671; and a decline of $11,000,000 as compared with 1857:—

FOREIGN IMPORTS AT NEW YORK IN JULY.

	1857.	1858.	1859.	1860.
Entered for consumption.....	$26,042,740	$14,013,659	$21,681,460	$18,759,905
Entered for warehousing	6,796,835	2,949,166	1,486,147	1,594,918
Free goods.....	2,455,333	1,506,027	3,943,374	4,402,475
Specie and bullion	505,298	36,895	175,139	64,351
Total entered at the port.....	$35,800,206	$18,505,747	$27,286,120	$24,881,649
Withdrawn from warehouse	10,470,820	8,164,538	2,595,063	3,593,993

The decline for the month, added to the falling off of the previous six months, gives a diminution of $14,000,000 since January, and this diminution has been to the extent of $8,420,000 in dry goods. The stock in warehouse has diminished, since the quantities entered for the seven months have been $2,000,000 more, and the withdrawals are greater by $3,800,000. The amount of specie received from abroad is much less than for several of the previous years, as follows :—

FOREIGN IMPORTS AT NEW YORK FOR SEVEN MONTHS, FROM JANUARY 1ST.

	1857.	1858.	1859.	1860.
Entered for consumption.....	$91,280,614	$50,334,179	113,511,023	$98,705,594
Entered for warehousing.....	47,911,631	15,185,419	23,209,758	25,377,877
Free goods	11,680,078	12,955,525	18,429,131	17,765,566
Specie and bullion	5,857,310	1,815,258	1,301,082	751,188
Total entered at the port.....	156,729,633	80,290,381	156,450,994	142,599,725
Withdrawn from warehouse.....	23,616,081	25,076,502	14,110,784	17,909,650

The whole warehouse operations have been larger than in any year except 1857. The figures for the dry goods imports were as follows :—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR THE MONTH OF JULY.

ENTERED FOR CONSUMPTION.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	$6,996,986	$2,691,875	$4,911,803	$4,700,030
Manufactures of cotton.....	2,644,673	1,066,295	2,961,195	1,504,437
Manufactures of silk	6,483,722	2,244,955	5,095,323	4,426,960
Manufactures of flax.....	1,034,170	575,752	1,156,373	421,291
Miscellaneous dry goods.....	1,187,900	417,254	510,912	740,867
Total.....	$18,347,451	$6,996,131	$14,635,606	$11,793,585

WITHDRAWN FROM WAREHOUSE.

	1857.	1858.	1859.	1860.
Manufactures of wool	$2,644,823	$409,266	$441,207	$488,655
Manufactures of cotton.....	639,531	131,971	57,071	175,282
Manufactures of silk	2,042,572	192,302	136,717	133,646
Manufactures of flax.....	392,013	88,225	37,689	40,700
Miscellaneous dry goods.....	247,997	90,665	40,124	14,924
Total.....	$5,966,886	$912,429	$712,808	$853,157
Add entered for consumption	18,347,451	6,996,131	14,635,606	11,793,585
Total thrown upon market...	$24,314,337	$7,908,560	$15,348,414	$12,646,742

ENTERED FOR WAREHOUSING.

	1857.	1858.	1859.	1860.
Manufactures of wool	$1,235,003	$370,985	$771,660	$417,782
Manufactures of cotton	408,236	63,427	164,492	178,703
Manufactures of silk	568,065	70,949	133,349	152,427
Manufactures of flax	164,535	54,452	79,446	75,020
Miscellaneous dry goods	206,291	43,045	33,538	30,237
Total	$2,582,130	$602,908	$1,182,485	$913,628
Add entered for consumption	18,347,451	6,996,131	14,635,606	11,793,585
Total entered at the port	$20,929,581	$7,599,039	$15,818,091	$12,707,213

The decline as compared with last year is $3,100,000.

IMPORTS OF FOREIGN DRY GOODS AT THE PORT OF NEW YORK, FOR SEVEN MONTHS, FROM JANUARY 1ST.

ENTERED FOR CONSUMPTION.

	1857.	1858.	1859.	1860.
Manufacturesof wool	$14,405,242	$7,667,688	$21,119,857	$18,658,647
Manufactures of cotton	11,593,109	4,886,559	15,849,312	10,300,197
Manufa tures of silk	17,805,042	8,855,154	20,613,222	21,161,104
Manufactures of flax	4,104,518	2,115,268	6,477,370	4,126,995
Miscellaneous dry goods	4,420,275	1,782,432	3,252,605	3,321,765
Total	$52,328,186	$25,307,081	$67,311,866	$57,568,708

WITHDRAWN FROM WAREHOUSE.

	1857.	1858.	1859.	1860.
Manufactures of wool	$3,688,663	$2,606,395	$1,271,404	$1,767,264
Manufactures of cotton	2,402,012	2,947,330	1,120,282	1,886,739
Manufactures of silk	3,244,488	2,581,656	576,856	1,036,333
Manufactures of flax	1,128,012	1,544,048	656,944	538,092
Miscellaneous dry goods	591,981	948,991	271,150	392,740
Total	$11,055,156	$10,628,420	$3,896,636	$5,571,168
Add entered for consumption	52,328,186	25,307,081	67,311,866	51,563,708
Total thrown on market	$63,383,342	$35,930,501	$71,208,502	$63,134,876

ENTERED FOR WAREHOUSING.

	1857.	1858.	1859.	1860.
Manufactures of wool	$5,349,836	$1,492,256	$2,320,121	$2,339,406
Manufactures of cotton	2,502,530	1,441,855	911,922	1,605,632
Manufactures of silk	3,989,463	914,698	525,498	1,138,035
Manufactures of flax	1,458,629	594,960	437,587	290,506
Miscellaneous dry goods	1,087,599	418,308	275,990	425,400
Total	$14,388,107	$4,862,277	$4,471,118	$5,798,979
Add entered for consumption	52,328,186	25,307,081	67,311,866	57,563,708
Total entered at the port	$66,716,293	$30,169,358	$71,782,984	$63,362,687

We may here call attention to the remarkable fluctuation in the imports of dry goods, at this port, as presented in the aggregates for the first seven months of each year, as follows :—

1850	40,414,677	
1851	42,240,217	
1852		34,994,294
1853	57,421,619	
1854	55,808,983	
1855		84,724,395
1856	60,296,946	
1857	66,716,293	
1858		80,169,358
1859	71,982,984	
1860	63,362,687	

Every third year there has been an inevitable decline of imports to the same figure. In 1852, 1855, and 1858, a reaction and fall took place. Will the same happen next year?

The cash duties received at the port of New York, during the month of July, have been less than for the same period of 1859; they are reckoned, of course, upon the goods thrown on the market. We annex a comparative summary:—

CASH DUTIES RECEIVED AT NEW YORK.

	1857.	1858.	1859.	1860.
In July	$6,987,019 61	$3,387,305	$4,851,248 49	$4,504,066
Previous six months	19,293,521 81	11,089,112	19,512,181 99	18,339,671
Total since Jan. 1st	$26,280,540 92	$14,476,418	$24,363,428 88	$22,843,741

The domestic exports from the port of New York for the month of July have been considerably larger than for the same month in any previous year. This arises from the large crops of cotton this year being supported by the revival of the breadstuff demand abroad, and this has carried the New York business to a high figure. The value of domestic produce exported exceeds that of last year by $2,600,000, while specie sent abroad is $3,400,000 less:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE MONTH OF JULY.

	1857.	1858.	1859.	1860.
Domestic produce	$4,273,696	$4,771,962	$4,938,065	$7,525,718
Foreign merchandise (free)	407,697	70,463	380,782	232,552
Foreign merchandise (dutiable)	582,059	277,419	232,527	140,949
Specie and bullion	2,628,377	2,801,496	10,051,019	6,563,985
Total exports	$8,891,829	$7,921,829	$15,602,393	$14,463,199
Total, exclusive of specie	5,263,452	5,119,844	5,551,374	7,811,214

This leaves the total foreign exports from New York, since January 1st, exclusive of specie, $14,307,000 more than for the corresponding seven months of last year, and $14,727,415 more than for 1858, and also more than for any previous year.:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR SEVEN MONTHS, FROM JANUARY 1.

	1857.	1858.	1859.	1860.
Domestic produce	$38,725,336	$33,352,354	$33,373,647	$46,281,575
Foreign merchandise (free)	2,315,874	853,024	1,765,100	1,860,424
Foreign merchandise (dutiable)	2,883,956	2,557,844	1,021,890	3,325,061
Specie and bullion	26,026,439	15,161,455	43,248,991	28,143,737
Total exports	$69,951,605	$51,924,677	$80,409,628	$79,610,797
Total, exclusive of specie	43,925,166	36,763,222	37,160,637	51,467,060

There has been a corresponding decline in the amount of specie exported, that being less by $15,105,000 than at the same time last year. The prospect is now that the improved demand for breadstuffs, and the lessened import, will cause the specie to reaccumulate in the country.

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

BRITISH SPECIE IMPORTS AND EXPORTS, SIX MONTHS, TO JUNE 30.

IMPORTS.

	1859.			1860.		
	Gold.	Silver.	Total.	Gold.	Silver.	Total.
Belgium.....	£3,540	1,734,000	£1,737,540	£1,600	£571.200	£572,800
France.....	671,600	5,277,300	5,948,900	62,300	2,265,800	2,328,100
Hanse Towns....	286,600	728,900	1,015,500	4,540	376,000	380,540
Holland	300	479,800	480,100	.....	1,800	1,800
Russia.....	1,413,000	.....	1,413,000	187,000	1,400	188,400
Spain & Portugal.	28,500	74,850	103,350	1,680	129,942	131,622
Gibraltar	.....	.....	.....	1,560	8,520	10,080
Malta	1,900	.. ...	1,900	2,400	300	2,700
Constantinople ..	505,400	1,600	507,000	2,060	.....	2,060
Alexandria.....	49,100	5,000	54,100	.....	2,600	2,600
Cape Good Hope, Cape Verde, and Sierra Leone ..	74,540	2,830	77,370	71,500	1,857	73,357
United States ...	5,089,000	358,600	5,447,600	1,980,000	517,000	2,497,000
Mexico, West Indies, Cent. America, etc.....	1,206,300	1,236,900	2,443,200	579,740	1,853,250	2,432,990
Brazils	252,780	300	253,080	108,863	.....	108,863
South America...	.....	.....	.....	.....	500	500
Australia.....	4,146,240	.....	4,146,240	3,043,590	.....	3,043,590
New Zealand....	124	.....	124	5,000	.....	5,000
Total.....	13,728,924	9,900,080	23,629,004	6,051,833	5,730,169	11,782,002

EXPORTS.

Belgium..	£302,000	£51,200	£353,200	£67,250	£4,800	£72,050
France.....	10,840,800	803,200	11,644,000	4,135,170	184,800	4,319,970
Hanse Towns ...	854,650	630,300	1,484,950	11,075	193,800	204,875
Holland	231,500	7,800	239,300	1,540	700	2,240
Spain & Portugal.	70,400	.....	70,400	252,635	700	253,335
Gibraltar	.. ...	.....	.....	9,800	.....	9,800
Malta	50,000	.....	50,000	50,000	.....	50,000
Alexandria.....	9,000	.....	9,000	104,586	.....	104,586
Aden.....	100	.....	100	700	.....	700
Mauritius.....	.....	750	750	.....	.....	.....
Ceylon	14,340	.....	14,340	4,949	.....	4,949
Bombay	50,429	3,446,090	3,496,519	502,953	1,992,595	2,495,548
Madras.....	55,865	139,962	195,827	78,022	84,584	162,606
Calcutta.....	7,000	3,345,656	3,352,656	147,481	1,054 361	1,201,842
Singapore.....	914	113,745	114,659	.....	129,200	129,200
Penang.....	.....	7,800	7,800	.....	14,940	14,940
Manilla.....	22,000	750	22,750	.....	.....	.....
Hong Kong	700	722,389	723,089	20,870	970,778	991,648
Shanghae.....	.....	431,692	431,692	.....	869,458	869,458
Foo-chow-foo.....	.....	.....	.....	.....	19,194	19,194
Cape Good Hope, Cape Verde, and Sierre Leone...	10,000	.....	10,000	15,265	1,200	16,465
United States ...	.....	.....	.....	500	1,580	2,080
Mexico, West Indies, Cent. America, etc.....	30,580	200	37,780	28,540	67,000	95,540
Brazils	85,920	177,000	262,920	487,313	71,850	502,163
South America ..	.....	.....	.....	3,000	.....	3,000
Total....	12,636,198	9,878,524	22,514,782	5,871,649	5,661,405	11,533,189

The following amounts have been exported from Marseilles and other Mediterranean ports, to India, China, Reunion, Mauritius, &c., between January 1st and June 1st, 1860:—Gold, £126,756; silver, £1,406,941; total, £1,533,697, which is included in the amounts exported to Alexandria, Aden, Mauritius, Ceylon, Bombay, Madras, Calcutta, Singapore, Penang, Manilla, Hong Kong, Shanghae, and Foo-chow-foo.

The aggregate imports and exports for the year to June 30th, were as follows:—

	Imports.			Exports.		
	Gold.	Silver.	Total.	Gold.	Silver.	Total.
6 mos. to Jan. 1.	12,238,956	7,280,388	19,519,344	11,233,044	7,299,078	18,532,122
6 mos. to July 1	6,051,833	5,730,169	11,782,002	5,871,649	5,661,105	11,533,189
Total	18,290,789	13,010,557	31,301,346	17,104,693	12,960,183	30,065,311

ENGLISH CUSTOMS DUTIES.

The following account of the gross product of the customs duties during the past year, contrasted with the three previous years, will possess peculiar interest, as the last of the period before the complete adoption of free trade. Each article is arranged in the order of the amount yielded, sugar being at the head of the list—a place recently occupied by tobacco. Among the principal items which will never appear again—the duties having been entirely abolished—are silk manufactures, which gave £307,561; butter and cheese, which gave £154,243, and tallow, which gave £75,502; while among those upon which reductions will operate to the largest extent are timber, wine, spirits, and fruit:—

	1856.	1857.	1858.	1859.
Sugar.....	£5,655,626	£4,942,081	£5,786,987	£5,891,192
Tobacco.....	5,209,626	5,253,431	5,454,214	5,575,463
Tea.....	5,538,242	5,020,032	5,166,170	5,408,924
Spirits.....	2,560,556	2,366,494	2,216,481	2,462,112
Wine.....	2,078,735	1,965,361	1,827,111	1,982,302
Timber.....	577,580	589,725	576,797	629,868
Fruit.....	364,386	353,080	494,985	597,170
Corn.....	488,723	473,383	586,783	532,900
Coffee.....	586,767	456,805	442,120	431,361
Silk manufactures.....	.....	250,995	270,540	307,561
Refined sugar.....	.....	278,336	235,891	228,273
Molasses.....	.....	150,308	200,418	158,638
Spices.....	118,280	112,559	127,859	134,916
Butter.....	124,458	110,593	95,489	104,587
Tallow.....	69,559	74,776	87,665	75,502
Leather manufactures.....	66,962	65,231	58,117	73,431
Cheese.....	49,530	48,200	44,369	49,656
Eggs.....	19,566	21,169	22,426	24,787
Rice.....	26,903	28,154	33,036	24,508
Watches.....	15,426	14,555	15,133	16,267
Cocoa.....	15,678	11,554	12,796	14,504
Embroidery.....	12,323	10,669	8,521	9,564
Clocks.....	8,036	8,224	7,748	8,978
Caoutchouc.....	12,102	8,952	8,663	7,157
Hops.....	23,873	32,459	37,320	4,434
Woolen manufactures.....	4,460	1,986	1,559	3,808
Worsted yarn.....	.....	1,776	2,207	3,148
Other articles.....	274,625	265,533	289,941	311,060
Total.....	£24,206,844	£22,956,371	£24,155,852	£25,065,066

BANKS OF THE UNITED STATES, JANUARY, 1860.

By the politeness of JOHN W. FORNEY, Esq., Clerk of the House of Representatives, we have received the following official copy of the annual report of the banks of the United States, nearest to January, 1860 :—

STATES.	Banks.	Branches.	Date of returns.	Capital.	Loans and discounts.	Stocks.	Specie.	Circulation.	Deposits.
Maine	68	..	January 2, 1860	$7,506,890	$12,654,794	.....	$670,979	$4,149,718	$2,411,022
New Hampshire	52	..	December 5, 1859	5,016,000	8,591,688	.....	255,278	3,271,183	1,187,991
Vermont	46	..	July & Aug., 1859	4,029,240	6,946,523	$176,400	198,409	3,882,983	787,834
Massachusetts	174	..	October 29, 1859	64,519,200	107,417,323	.....	7,532,647	22,086,920	27,804,699
Rhode Island	91	..	January 2, 1860	20,865,569	26,719,877	214,102	450,920	3,558,295	3,553,104
Connecticut	73	1	May .., 1859	21,512,176	27.856,785	1,267,406	989,920	7,561,519	5,574,900
New York	303	..	December 10, 1859	111,441,320	200,351,332	26,897,874	20,921,545	29,959,506	104,070,273
New Jersey	49	..	January .., 1860	7,884,412	14,909,174	962,911	940,700	4,811.832	5,741,465
Pennsylvania	90	..	November .., 1859	25,565,582	50,327,157	2,513 674	8,378,474	13,132,892	26,167,843
Delaware	9	3	January .., 1860	1,640,775	3.150,215	4,750	208,924	1,135,772	976,226
Maryland	31	..	January 2, 1860	12,568,962	20,898,762	848,283	2.779,418	4.106,869	8,874,180
Virginia	24	41	January 1, 1860	16,005,156	24,975,792	3,581,078	2,943,652	9,812 197	7,729,652
North Carolina	13	17	January 1, 1860	6.626,478	12,213,272	363,828	1,617,687	5,594,047	1,487,273
South Carolina	18	2	December .., 1859	14,962.062	27,801,912	2,994,688	2,324,121	11,475,634	4,165.615
Georgia	25	4	October .., 1859	16,689,560	16,776,282	2,583,158	3,211,974	8,798,100	4,738,289
Florida	2	..	January .., 1860	300,000	464,630	100,025	32,876	183,640	129,518
Alabama	8	..	January .., 1860	4,901,000	13,570,027	524,513	2,747,174	7,477,976	4,851,153
Louisiana	12	1	December 31, 1859	24,496,866	35,401,609	5,842,096	12,115,431	11.579,313	19,777,812
Tennessee	16	18	January .., 1860	8,067,037	11,751,019	1,233,432	2,267,710	5,538,378	4 324,799
Kentucky	11	34	January .., 1860	12,835,670	25.284,869	851.562	4,502,250	13.520,207	5,662.892
Missouri	9	29	January .., 1860	9,082.951	15.461,192	725.670	4,160,912	7.884,885	3,357,176
Illinois	74	..	January .., 1860	5,251,225	387,229	9.826,691	223,812	8,981,723	697,037
Indiana	17	20	Nov.,'59, to Jan.,'60	4,343,210	7,675,861	1.349,466	1,583,140	5.390.246	1,700,479
Ohio	52	..	February 6, 1860	6,890,839	11,100,462	2,153.552	1,828,640	7,983,889	4,039,614
Michigan	4	..	December .., 1859	755,465	892,949	192,831	24,175	222,197	375,397
Wisconsin	108	..	January 2, 1860	7,620,000	7,592,861	5,081,504	419,947	4.429,855	3,085,813
Iowa	12	..	December 5, 1859	460,450	724,228	101,849	255,545	563.806	527,378
Kansas Territory	1	..	January 1, 1860	52.000	48,256	.....	8.268	8,895	2.695
Total, January, 1860	1,392	170	.....	$421.880,095	$691,945,590	$70,344,343	$83,594,537	$207,102,477	$253,802,129
" " 1859	1,329	147	.....	401.976 242	657.183.799	.....	104.537,818	193,306.818	259,568,278
" " 1858	1,284	138	.....	294.622.799	683,165.242	.....	74,412,832	155.2 8 314	185,982,049
" " 1857	1,283	133	.....	370,834,686	684,456,887	.....	58,349,888	214,778,872	230,851,352

CITY WEEKLY BANK RETURNS.

NEW YORK BANK RETURNS.—(CAPITAL, JAN., 1860, $69,333,682; 1859, $68,050,755.)

	Loans.	Specie.	Circulation.	Deposits.	Average clearings.	Actual deposits.
Jan. 7	124,597,663	17,863,734	8,539,063	97,493,709	22,684,854	74,808,855
14	123,582,414	18,740,866	8,090,548	99,247,743	23,363,980	75,883,763
21	123,845,931	19,233,494	7,880,865	99,644,128	22,813,547	76,830,581
28	123,088,626	20,063,739	7,760,761	98,520,793	21,640,967	76,879,826
Feb. 4	124,091,982	19,924,301	8,174,450	99,476,430	21,898,736	77,577,694
11	123,336,629	19,787,567	8,185,109	98,146,463	21,674,908	76,471,055
18	124,206,031	20,591,189	8,050,001	100,387,051	22,061,811	78,325,240
25	124,398,239	20,773,896	7,928,595	100,622,481	22,151,504	78,470,977
Mar. 3	125,012,700	23,086,812	8,165,026	103,663,462	22,787,290	80,876,172
10	127,302,778	21,861,180	8,419,633	104,813,906	23,791,958	81,021,948
17	127,562,848	23,171,838	8,380,999	108,560,981	25,562,858	82,998,123
24	127,613,507	23,286,204	8,335,266	107,505,395	25,397,976	82,107,419
31	128,388,223	23,420,759	8,444,827	106,811,554	22,889,523	83,422,031
Apr. 7	130,606,731	22,599,132	8,929,228	109,193,464	25,656,629	83,536,835
14	129,919,015	23,626,982	8,775,297	109,153,863	24,256,270	84,897,593
21	128,448,868	23,233,314	8,790,459	108,145,233	25,758,735	82,386,498
28	127,085,667	23,279,809	8,749,048	108,206,723	21,891,290	81,815,433
May 5	127,479,520	23,815,746	9,891,861	108,505,388	26,546,063	81,959,325
12	126,184,532	22,780,887	9,153,811	108,038,848	27,802,174	80,236,674
19	124,938,389	23,735,193	9,035,522	106,229,724	25,339,444	80,890,280
26	125,110,700	23,431,773	8,826,473	104,433,136	24,309,496	80,123,640
June 2	124,792,271	24,535,457	8,774,063	104,268,785	22,888,107	81,380,678
9	125,431,963	23,785,581	8,999,948	103,886,091	22,776,108	80,609,983
16	125,399,997	24,110,553	8,828,786	104,031,268	22,492,614	81,538,654
23	125,886,565	23,850,921	8,779,115	102,737,055	22,116,242	80,620,813
30	127,208,201	22,464,250	8,745,182	102,496,762	21,309,053	81,187,709
July 7	127,244,241	22,751,694	9,343,727	103,450,426	22,119,106	81,331,320
14	127,123,166	23,641,357	8,075,528	106,899,678	23,456,447	82,943,231
21	128,427,489	23,443,614	8,833,619	107,717,216	23,457,781	84,259,435
28	129,074,298	23,099,726	8,760,252	105,524,100	21,239,450	84,284,650
Aug. 4	130,118,247	22,128,189	9,176,386	107,264,777	23,417,789	83,846,988
11	129,855,179	21,579,740	9,129,835	105,505,399	22,626,292	82,879,107
18	129,950,346	21,008,701	9,088,648	105,690,481	22,934,365	82,756,116

BOSTON BANKS.—(CAPITAL, JAN., 1859. $35,125,433; 1860, $36,581,700.)

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 2 ..	59,807,566	4,674,271	6,479,483	18,449,305	7,545,222	6,848,374
16 ..	60,068,941	4,478,841	6,770,624	17,753,002	7,867,400	6,735,283
23 ..	59,917,170	4,182,114	6,486,139	17,378,070	7,784,169	6,516,532
30 ..	59,491,387	4,172,325	6,199,485	17,483,054	7,383,370	6,517,541
Feb. 6 ..	59,705,422	4,249,594	6,307,922	17,900,002	7,259,703	6,656,460
13 ..	59,993,784	4,462,698	6,364,320	17,271,596	7,426,539	6,593,702
20 ..	60,115,836	4,577,334	6,305,537	17,597,881	7,430 060	6,549,382
27 ..	59,927,917	4,714,034	6,411,573	18,020,239	7,700,530	7,480,954
March 5 ..	59,993,784	5,034,737	6,396,656	18,645,621	7,736,290	7,768,074
12 ..	59,885,196	5,328,610	6,430,643	18,393,293	7,715,668	7,390,935
19 ..	60,258,208	5,446,840	6,405,084	18,660,205	....	.....
26 ..	60,180,209	5,627,961	6,328,273	18,742,817	8,351,016	7,804,222
Apr. 2 ..	60,050,953	6,045,703	6,340,268	19,262,894	8,473,775	8,080,218
9 ..	60,668,559	6,320,551	7,753,491	20,469,893	9,206,161	9,788,121
16 ..	61,189,629	6,289,719	7,267,165	20,291,620	9,160,868	8,814,312
23 ..	61,035,965	6,315,952	7,152,766	20,266,917	9,055,077	8,188,121
30 ..	61,259,552	6,317,999	6,992,903	20,195,951	9,273,558	7,948,086
May 7 ..	61,614,199	6,311,714	7,322,813	20,810,086	9,116,514	8,324,391
14 ..	61,744,290	6,263,535	7,076,071	20,758,862	9,210,132	8,209,699
21 ..	61,724,621	6,268,919	7,081,306	20,726,996	9,197,394	8,241,899
28 ..	61,258,986	6,201,113	6,660,595	20,320,518	9,057,822	8,272,557
June 4 ..	61,585,669	6,192,455	6,800,711	20,656,295	9,172,878	8,366,511

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
11 ..	62,346,519	6,300,700	7,090,282	20,228,677	9,629,483	7,857,439
18 ..	63,085,953	6,322,698	7,165,453	20,677,536	9,988,840	7,991,098
25 ..	63,557,155	6,262,930	7,188,326	20,750,673	10,307,194	8,188,802
July 2 ..	64,172,028	6,059,370	6,925,022	20,828,714	10,300,178	7,527,888
9 ..	65,039,459	6,087,718	7,932,653	21,133,175	11,304,893	9,105,876
16 ..	65,153,413	5,685 920	7,560,636	20.312,421	11,098,306	7.995,222
23 ..	64,852,961	5,385,528	7,523,745	19,751,318	11,093,127	8,158,425
30 ..	64,460,289	5,212,470	6,848,834	19,296,454	10,353,708	6,961,414

PHILADELPHIA BANKS.—(CAPITAL, JAN., 1860, $11,687,435.)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 2....	25,386,387	4,450,261	2,856,601	14,962.919	2,619,192
9....	25,248,051	4,458,252	2,675,623	14,161,437	2,596,212
16....	25,275,219	4,561,998	2,672,730	14,934,517	2,563,449
23....	25,445,737	4,514,579	2,644,191	15,064,970	2,601,271
30....	25,526,198	4,535,321	2,601,750	15,401,915	2,619,578
Feb. 6....	25,493,975	4,669,929	2,656,310	15,409,241	2,574,015
13....	25,493,975	4,669,929	2,656,310	15,409,241	2,574,015
20....	25,458,854	4,581,356	2,663,695	14,864.302	2.782,306
27....	25,553,918	4,706,108	2,653,192	14,590,092	3,115,010
Mar. 5....	25,742,447	4,816,052	2,697,108	15,192,971	3,133,312
12....	25,742,447	4,816,052	2,697,108	15,192,971	3,133,312
19....	25,882,077	4,873,419	2.783,345	15,205,432	3,209,553
26....	26,043,772	4,992,542	2,784,773	15,693,622	3,198,530
April 2....	26,405,229	5,060,274	2,858,812	15,553,269	3,652,757
9....	27,214,254	5,209,576	3,528,762	15 528,762	4,085,695
16....	27,444,580	5,415,711	3,252,186	16,012,140	4,164,678
23....	27,545,851	5,464,280	3,154,285	16,613,616	3,985,110
30....	27,571,002	5,453,470	3,087,846	16,529,891	3,902,514
May 7....	27,590,212	5,477,019	2,968,444	16,763,609	3,731,987
14....	27,463,831	5,537,360	2,944,245	16,489,872	4,209,845
21....	27,401,926	5,367,416	2,870,617	16,422,835	4,085,882
28 ...	27,283,932	4,886,579	2,818,719	15,884,903	3,974,369
June 4....	27,171,002	4,582,610	2,824,471	15,620,293	3,744,431
11....	27,046,016	4,183,667	2,810,552	15,698,909	3,128,287
18....	26,882,709	4,222,644	2,725,269	15.642.639	3,109,639
25....	26,780,533	4,329,638	2,654,503	15,643.433	3,060,615
July 2....	26,835,868	4,305,866	2,960,381	15,824,391	3,159,819
9....	26,835,868	4,305,866	2,960,381	15,824,391	3,159,819
16....	26,878,435	4,408,157	2,859,852	15,796,205	3,313,195
23....	26,842,743	4,553,641	2,821,082	15,966,734	3,099.567
30....	26,851,776	4,249,804	2,785,718	16,085,967	3,211,855

NEW ORLEANS BANKS.—(CAPITAL, JAN., 1860, $18,917,600.)

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
Jan. 7 ..	25,022,456	12,284,448	12,038,494	18,568,804	7,823,580	1,557.174
14 ..	24,928,909	12,336,735	12,417,847	18,678,283	7,410,360	1,387,704
21 ..	24,699,024	12,821,411	12,809,512	18,664,855	7,423,629	1,377,796
28 ..	24,916,431	12,818,159	12,882,184	19,677,121	8,144,681	1,608,763
Feb. 4 ..	25,145,274	12,750,642	13,215,494	19,565,305	8,003,380	1,613,036
11 ..	25,197,351	12,741,881	13,343,924	19,244,847	7,349,365	1,396,150
18 ..	25,005,952	12,894,521	13,458,989	19,903,519	7,886,609	1,470,787
25 ..	24,897,286	12,945,204	13,600,419	19,218,590	8,083,929	1,635,526
Mar. 3 ..	24,946.210	12,952,002	13,860,899	20,116,272	8,027,049	1,092,475
10 ..	24,088,800	13,039,092	13,726,554	19,711,423	8,582,012	1,601,149
17 ..	24,054,845	12,729,356	13,797,154	19,304,618	8,498,790	1,718,310
24 ..	23,832,766	12,610,790	13,835,755	19,102,068	8,342,599	1,738,246
31 ..	23,674,714	12,487,195	13,975,624	18,681,020	8,149,061	1,610,499
Apr. 7 ..	23,107,740	12,868,071	14,100,890	18,070,209	8,560,117	1,942,056
14 ..	22,422,203	12,290,539	13,638,089	17,849,018	8,179,441	1,608,463
21 ..	22,380,033	12,100,687	12,999,204	18,380,033	7,649,069	1,649,060
28 ..	21,437,974	11,910,361	12,783,749	17,699,538	7,686,634	1,877,017

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
May 5 ..	21,437,974	11,910,861	12,783,749	17,699,538	7,686,634	1,877,017
12 ..	20,545,529	11,672,364	12,258,444	17,442,974	7,213,833	1,763,871
19 ..	19,385,119	11,706,007	12,163,609	17,260,226	6,909,386	1,680,480
26 ..	18,588,492	11,593,719	11,900,864	17,938,774	6,599,676	1,596,210
June 2 ..	18,282,807	11,191,024	11,791,799	16,985,565	6,173,783	1,459,051
9 ..	17,428,118	11,072,286	11,572,259	16,989,587	5,958,996	1,442,041
16 ..	16,864,692	10,693,389	11,389,389	16,105,556	5,538,830	1,665,076
23 ..	16,821,969	10,223,276	11,138,434	15,319,947	5,067,682	1,739,481
July 7 ..	16,627,125	9,883,812	10,921,057	14,671,491	4,548,395	1,601,540
14 ..	16,795,836	9,693,954	10,695,884	14,557,417	4,123,242	1,401,804
21 ..	16,945,426	9,544,798	10,810,824	14,326,547	3,706,020	1,512,608
28 ..	17,802,024	9,607,448	10,071,383	14,358,884	3,219,947	1,163,961

PITTSBURG BANKS.—(CAPITAL, $4,160,200.)

	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 16.....	7,202,367	980,530	2,080,548	1,527,548	804,562
23.....	7,060,471	1,022,273	2,012,478	1,545,103	255,076
30.....	6,989,320	1,003,037	1,896,368	1,555,686	265,804
Feb. 6.....	6,984,209	997,589	1,907,323	1,609,692	230,426
13.....	6,989,052	951,638	1,883,093	1,602,311	191,222
20.....	6,957,621	988,306	1,868,598	1,643,703	175,051
27.....	7,022,230	991,377	1,821,283	1,760,957	224,434
Mar. 5.....	7,101,459	1,018,255	1,871,873	1,768,879	273,343
12.....	7,035,624	999,093	1,901,543	1,651,216	197,007
19.....	7,066,774	1,004,750	1,945,328	1,636,887	198,556
26.....	7,038,891	981,560	1,980,732	1,572,130	192,411
Apr. 2.....	7,166,877	1,005,415	2,085,583	1,601,167	191,101
9.....	7,206,737	990,962	2,072,373	1,693,230	171,100
16.....	7,159,568	1,018,445	2,071,378	1,651,362	187,255
23.....	7,278,279	1,156,278	2,024,138	1,897,498	240,143
30.....	7,234,761	1,141,373	1,995,053	1,913,537	175,671
May 5.....	7,234,761	1,141,373	1,995,053	1,913,537	175,671
14.....	7,263,197	1,088,851	2,011,258	1,890,810	215,765
19.....	7,196,493	1,133,719	2,022,988	1,906,773	213,944
27.....	7,190,192	1,122,057	1,952,683	1,918,321	206,316
June 4.....	7,282,963	1,089,751	1,907,248	1,919,903	277,978
11.....	7,214,889	1,126,808	1,919,688	1,892,800	240,728
18.....	7,247,541	1,102,446	2,029,558	1,743,915	271,062
25.....	7,291,888	1,150,248	2,048,358	1,779,752	315,858
July 14.....	7,310,669	1,068,974	2,071,443	1,818,515	239,832
21.....	7,294,891	1,083,220	2,073,593	1,846,879	205,011

ST. LOUIS BANKS.

	Exchange.	Circulation.	Specie.
Jan. 7.....	4,373,543	538,555	662,755
14.....	4,467,513	520,305	642,497
21.....	4,352,699	502,175	580,754
28.....	4,290,563	495,380	563,335
Feb. 4.....	4,149,236	457,095	590,502
11.....	4,048,593	424,605	625,043
18.....	3,906,896	391,605	639,450
25.....	3,951,433	399,085	630,877
March 3.....	3,891,263	395,905	689,301
10.....	3,998,827	377,935	651,302
17.....	3,963,924	377,355	641,252
24.....	3,880,915	356,245	664,179
31.....	3,790,291	340,095	685,984
April 7.....	3,862,454	344,680	657,321
14.....	3,868,345	325,950	676,858
21.....	3,852,614	314,360	601,014
28.....	3,694,877	306,750	678,234
May 5.....	3,609,648	301,300	746,176

		Exchange.	Circulation.	Specie.
	12	3,683,644	294,115	808,913
	19	3,695,707	285,140	826,798
	26	3,767,986	273,540	671,669
June	2	3,879,617	255,210	627,942
	9	3,823,735	253,780	656,358
	16	3,888,763	244,850	682,917
	23	3,967,032	235,935	705,764
	30	3,825,423	206,749	804,983
July	7	3,736,695	199,385	791,729
	14	3,392,096	152,025	684,358
	21	3,679,192	191,375	752,397
	28	3,625,333	177,620	658,852

PROVIDENCE BANKS.—(CAPITAL, $14,903,000.)

	Loans.	Specie.	Circulation.	Deposits.	Due banks
Jan. 2	19,144,354	315,917	2,011,336	2,635,486	938,508
Feb. 6	19,144,846	326,297	1,958,540	2,566,168	921,779
Mar. 3	19,009,255	342,965	1,917,593	2,598,169	970,971
Apr. 1	18,686,210	343,992	1,952,022	2,640,170	1,040,260
May 7	18,893,653	448,413	2,045,590	2,773,248	1,356,071
June 4	18,891,907	422,726	1,938,254	2,844,012	1,210,104
July 2	19,243,061	430,128	2,158,904	2,790,587	1,115,951
Aug. 6	19,530,296	397,286	2,218,347	2,748,678	1,169,800

NEW YORK CITY BANKS, QUARTERLY STATEMENT, JUNE 25, 1860.

The following is the quarterly statement of the condition of the New York city banks, on the morning of Saturday, the 25th June, compared with the statement for June, 1858 and 1859 :—

LIABILITIES.

	1858, June 19.	1859, June 19.	1860, June 25.	Inc. on 1859.
Capital	$67,041,182	$68,645,014	$69,758,777	$1,113,763
Net profit	7,531,640	7,555,451	8,055,245	499,794
Circulation	7,080,796	8,128,072	8,723,385	595,313
Due other banks	28,276,873	23,744,605	26,394,167	2,649,562
Net deposits	74,806,752	72,713,844	79,988,633	7,274,789
Due all others	430,561	571,902	977,431	405,529
Total	$185,166,404	$181,358,888	$193,897,688	$12,538,750

RESOURCES.

Loans	$118,299,388	$118,543,934	$125,139,040	$6,595,106
Stocks	8,922,278	12,210,779	12,601,564	390,785
Bonds and mortgages	440,335	503,312	633,268	129,956
Real estate	5,815,368	6,055,947	6,314,469	258,522
Due from banks	5,338,023	6,213,431	7,013,735	800,304
Cash items	14,594,592	17,099,736	19,070,961	1,971,225
Specie	31,704,814	20,682,304	23,054,639	2,372,335
Overdrafts	51,606,000	49,445	69,962	20,517
Total	$185,166,404	$181,358,888	$193,897,638	$12,538,750

NEW YORK CITY BANKS.

The following table shows the capital of each bank, June 30, 1860; profits according to their quarterly reports of June 30, 1860; the ratio of specie to deposits for the week ending July 21; the semi-annual dividends of the year 1859; the percentage of net profits to capital, June 30, 1860, and prices offered and asked for their shares, and the latest sales at the Stock Board :—

Banks.	Capital.	Net profits.	Profits to capital.	Ratio of Specie, July 21.	Div'nds, 1859, p. c.	Div'nds, 1859, p. c.	Prices of shares. Offered.	Prices of shares. Asked.	Prices of shares. Sales.
Bank of New York	$3,000,000	$175,999	5 86	25.8	3½	3	102	102½	103
Manhattan Comp'y.	2,050,000	586,165	28 59	29	5	5	140	143	140½
Merchants'.....	2,766,012	124,108	4 49	31.1	3½	3½	106	107	107½
Mechanics'.....	2,000,000	314,067	15 70	24.9	4	4	116	118	107
Union.....	1,500,000	79,738	5 32	27.3	3½	3½	102½	103½	103
Bank of America..	3,000,000	371,195	12 37	32.8	3½	3½	111	112	...
Phenix	1,800,000	222,671	12 37	25.3	4	4	107	107½	107
City.....	1,000,000	167,652	16 77	20	4	4	123	125	...
Tradesmen's.. ...	1,000,000	91,802	9 18	26	4	4	109	112	112
Fulton.....	600,000	211,710	35 29	22	5	5	140	145	...
Chemical.....	300,000	658,216	219.40	38.7	6	6	400	...	...
Merchants' Exch'ge.	1,235,000	126,259	10 22	25.3	3½	3½	97	98	97
National.....	1,500,000	78,209	5 21	16.2	3½	3	105	106	105½
Butchers & Drovers'	300,000	121,630	15 20	35.6	5	5	120	125	..
Mech'ics & Traders'.	600,000	44,860	7 48	21.7	3½	3½	108	110	109½
Greenwich	200,000	44,153	22 02	13.8	6	6	150	...	...
Leather Manufac'rs'	600,000	242,595	40 43	28.3	5	5	140	145	...
Seventh Ward. ...	500,000	140,813	28 16	29	5	5	130	135	...
State of New York	2,000,000	156,891	7 84	36.2	3½	3½	99½	100	101
American Exch'nge	5,000,000	179,659	3 59	23.9	3½	3½	100½	101	101
Bank of Commerce	9,085,840	498,752	5 49	38.2	3½	3½	100	100½	99½
Broadway.....	1,000,000	443,118	44 31	29.8	5	5	137	140	...
Ocean.....	1,000,000	71,550	7 15	25.7	3½	3½	98	99	99½
Mercantile	1,000,000	146,412	14 64	26	5	5	120	125	...
Pacific.....	422,700	89,453	21 16	19.2	5	5	120	125	120
Bank of Republic..	2,000,000	399,291	19 96	34.1	5	5	129	130	130
Chatham.....	450,000	17,872	3 97	22.6	.	.	98	99½	...
People's	412,500	41,489	10 00	33	3½	3½	100	102	...
Bank of N. America	1,000,000	143,600	14 36	31.1	3½	3½	106	108	...
Hanover.....	1,000,000	90,943	9 09	22.1	.	3½	94	96	94½
Irving.....	500,000	35,832	7 16	25.3	3½	3½	...	96	...
Metropolitan	4,000,000	552,559	13 81	23.2	4	4	110½	111	111½
Citizens'	400,000	50,611	12 65	24.5	4	4	102	105	...
Nassau	1,000,000	45,415	4 54	21.8	3	3½	101	102	102
Market.....	1,000,000	91,151	9 12	25	4	4	100	102	...
St. Nicholas.....	750,000	24,142	3 22	21	3½	3½	90	94	93
Shoe & Leather...	1,500,000	180,487	12 03	25.4	4	4	107	109	108
Corn Exchange ...	1,000,000	96,050	9 60	30.3	3½	3½	101½	102½	102
Continental.....	2,000,000	124,532	6 23	19.8	3½	3½	100	101	...
Commonwealth....	750,000	54,674	7 29	22.5	3½	3½	96½	97	97
Oriental	300,000	29,239	9 74	25.5	3½	3½	...	100	...
Marine	664,200	17,312	2 61	23.4	3½	3	85	87	85
Atlantic	400,000	17,074	4 27	31.7	3½	3½	65	70	68
Import'rs & Trad'rs'	1,500,000	189,422	12 63	20.6	3½	4	110	112	...
Park.....	2,000,000	219,863	10 99	27.6	4	4	110	112	...
Artisans'.....	600,000	34,869	5 81	31.9	3½	3½	96	98	99½
Mech. Bank. Asso'n	500,000	41,820	8 36	26.4	3½	3½	102½	103	...
Grocers'.....	300,000	41,760	13 92	26.4	3½	3½	94	96	...
North River.....	316,000	14,539	4 60	24 5	.	.	93	96	95
East River.....	206,525	25,740	12 46	21.9	3½	3½	95	97	...
N. Y. Dry Dock...	200,000	9,350	4 68	*27	4	4	110	114	...
N. Y. Exchange...	150,000	18,418	12 27	*7.1	4	4	...	103	...
Bull's Head.....	200,000	22,788	11 40	*11.8	4	4	100	105	...
New York County.	200,000	22,141	11 07	*9.3	4	4	104	...	...
Manuf. & Merchants'	500,000	14,570	2 91	*20.3	.	.	...	...	...
Total, June 30, '60.	69,758,777	8,055,235							
Total, Mar. 31, '60.	69,420,057								

* On gross deposits.

VALUATION AND TAXATION IN CINCINNATI.

The Cincinnati *Gazette* of a recent date has the following statement in reference to the valuation of property and tax levy in Cincinnati and Hamilton :—

We give first the taxable basis or grand levy of the city, applicable as an estimate for the year 1860, for the official action of the council, and the revenue derived therefrom :—

VALUATION OF THE CITY.

Value of lots with improvements in seventeen wards	$61,428,917
Value of personal property in the same	26,483,458
Value of personal property in railroads, insurance companies, and other corporations, with additions by Board of Equalization	4,049,602
Total	$91,861,978

TAX LEVY.

For State purposes, in the city		$363,249 81
For county purposes, in the city		252,895 44
For city purposes on general levy, in city	$1,000,086 51	
For city purposes, special levy, water tax	50,000 00	
		1,059,000 00
Total amount levied in city		$1,666,145 25

The last item mentioned in the above is the special levy on each lineal foot of the frontage on the lines of water pipe, as provided for by the act of 1856.

We give next the taxable basis or grand levy of the county, applicable as an estimate for the year 1860, for the official action of the three County Commissioners, and the distribution for general county expenses :—

VALUATION OF THE COUNTY.

Value of lands	$17,049,369 00
Value of lots	64,970,392 00
Value of personal property	33,415,039 00
Total	$115,434,790 00
Taxable value of county other than city	25,654,165 00
Taxable value city	87,780,625 00

DISTRIBUTION—FOR GENERAL COUNTY PURPOSES.

3 mills on the dollar, on $2,000,000 taxable value, produce	$6,000 00
2 mills on the dollar, on $4,000,000 taxable value, produce	8,000 00
1.50 mills on the dollar, on $6,000,000 taxable value, produce	9,000 00
1.25 mills on the dollar, on $40,000,000 taxable value, produce	50,000 00
1 mill on the dollar, on $63,434,796 taxable value, produce	63,434 79
Taxable basis $115,434,790, producing	$136,434 79

There is an additional levy of 1.1819 of one mill for public buildings or payment of debts.

TAXABLE VALUATION OF MISSISSIPPI.

The Auditor's report of the State of Mississippi gives the following statement of the taxable value for 1859 :—

Land.....acres	20,085,173	$139,887,168	Slaves and cattle sold		$288,794
Money at interest		8,573,445	Carriages.....No.	13,600	2,123,608
Stocks		550,125	Watches	15,732	958,612
Merchandise brought into the State		12,855,646	Clocks	17,849	162,937
Merchandise sold at auction		44,424	Total		$165,146,910
Liquors sold at auction		202,161			

FAILURES IN LONDON IN 1858-59.

The pressure of the Italian War for an idea, produced the following financial results in London :—

LIST OF FAILURES IN LONDON, ETC., FROM NOVEMBER 1, 1858, TO OCTOBER 31, 1859.

NOVEMBER, 1858.

Plowes, Son & Co., Rio Janeiro, merchants.
W. J. Grey & Son, Newcastle, coalfitters.
Cowan & Bigg, London and Newcastle, ship and insurance brokers.
Pickworth & Walker, Sheffield, builders.
James Hyde & Co., Honduras, merchants.
James Davies & Son, London, boot and shoe manufacturers.

DECEMBER.

Hicks & Gadsden, London, American merchants.
Metcalf & Co., West Ham, distillers.
Forcheimer & Co., Prague, worsted spinners.
M. P. Poppe, Antwerp, oil and seed merchant.

JANUARY, 1859.

M. Demetriadi, Manchester, Greek trade.
John Symons & Co., Manchester, commission agents.
Bryant & Davies, London, commis'n merchants.
Prior, Turner & Co., London, Naples, and Palermo, Neapolitan trade.

FEBRUARY.

Bodin, Lichtenstein & Co., Marseilles, merchants.

MARCH.

Gutteman, Brothers & Co., Genoa, merchants.

APRIL.

Aquarone, Fils, Porro & Co., Marseilles, merch'ts.

MAY.

Wolf & Co., Berlin, bankers.
Lloyd, Beilby & Co., London, Australian trade.
Arnstein & Eskeles, Vienna, bankers.
Lutteroth & Co., Trieste, merchants.
Cresswell & Sons, Birmingham, ironmasters.
A. Sevastopulo & Sons, London, Mediterranean trade.
Frommel & Co., Augsburg, bankers.
The Bank of Thuringia.

JUNE.

Stevens Brothers, Liverpool, East India agents and merchants.
Robert Brandt & Co., London, merchants.

JULY.

Caluta Brothers, London, Greek trade.
Carter & Martin, Belfast, flax trade.
James Kennedy & Son, Belfast, flax trade.
Hull Brothers, Belfast, flax trade.
McConnell & Kennedy, Belfast, flax trade.

AUGUST.

A. di Demetrio & Sons, London, Greek merch'ts.
E. & A. Prior, London, coal merchants.

SEPTEMBER.

Mazurra & Co., Havana, Spanish trade.
W. H. Duncker, Hamburg, general merchant.
J. B. Kempe, St. Petersburg, tallow trade.
Kovrigni & Co., St. Petersburg, tallow trade.
C. C. Ingate & Son, London, Mediterranean trade.

OCTOBER.

J. & W. Pattison, Melbourne, contractors and general dealers.
Fairfax & Co., Sydney, merchants.
Alexeieff & Co., Moscow, general merchants.
M. Gutschkoff, Moscow, manufacturer.

STATISTICS OF POVERTY.

The New York *News*, speaking of pawnbroking establishments, says :—

We learn that there are fifty-eight licensed pawnbrokers in the city. There are, beside, numerous places where a similar business is done by persons under the description of loan offices. It is somewhat counter to our usual notions on this subject that, when times are flush, the pawnbrokers do the most business, turning their capital over frequently, while in hard times, when employment is difficult, the pledge remains long, or perhaps is left unredeemed.

The following is the result of the business of the pawnbrokers on the eastern side of the city :—

No.	Amount.	No. pledges.	No.	Amount.	No. pledges.
1	$250,000	46,000	17	$5,200	12,500
2	75,000	75,000	18	10,000	28,500
3	30,000	40,000	19	15,000	22,500
4	40,000	60,000	20	5,000	10,000
5	12,000	26,000	21	23,400	30,403
6	9,300	27,000	22	39,000	32,519
7	75,000	110,000	23	18,500	40,000
8	35,000	55,000	24	10,000	25,000
9	41,400	70,000	25	20,000	30,000
10	11,500	11,500	26	10,000	40,000
11	250,000	90,000	27	12,500	20,000
13	130,000	70,000	28	30,000	40,000
14	36,700	624,000			
15	25,000	44,000	Total	$1,237,000	1,754,222
16	15,000	28,000			

On the west side it is assumed that there is about an equal amount of business,

raising the number of pledges to 3,250,000, and the amount loaned to over $2,000,000 One singular fact is mentioned, that on the average not more than from 10 to 15 per cent of the pledges remained unredeemed, showing that the pawnbroker exerts an influence that is rather conducive to the comfort of the poor than to their ruin. The articles they receive form a fund to provide against an emergency somewhat like the deposit in a savings bank, and the hope of regaining them unquestionably acts as powerful stimulus to exertion.

DEBT OF RUSSIA.

The following shows the consolidated debt of Russia at this time:—

Foreign debt.....silver roubles	367,000,000 or	£57,343,000
Internal debt.....	152,000,000 or	23,750,000
Total consolidated debt.....	519,000,000 or	£81,093,000
FLOATING DEBT.		
Treasury bills falling due at fixed dates..sil. roub.	102,000,000 or	£15,937,000
Bills of the government credit establishments payable on presentation	1,013,000,000 or	158,281,000
Paper money.....	735,000,000 or	114,843,000
Total floating debt.....	1,850,000,000 or	289,061,000
Grand total.....	2,369,000,000 or	370,154,000

The above sum does not include the last loan of £12,000,000, contracted by Messrs. THOMSON, BONAR & Co., in 1859.

BANK PROFITS.

An examination of the quarterly returns of the banks of this city, shows that the profits of one are 219 per cent above par, two above forty per cent, and one above thirty-five per cent. Of the whole the following is the general result as to the fifty-five banks, on the 30th June, 1860 :—

Above		Above		Above	
219 per cent.....	1	15 per cent.....	2	7 per cent.....	5
40 "	2	14 "	2	6 "	1
35 "	1	13 "	2	5 "	5
28 "	2	12 "	7	4 "	5
22 "	1	11 "	2	3 "	3
21 "	1	10 "	3	2 "	2
19 "	1	9 "	5		
16 "	1	8 "	1		

The average exceed eleven-and-a-half per cent, or $8,055,000 net profits against a capital of $69,758,000.

JULY DIVIDENDS.

We publish, says the Charleston *Mercury*, the following statement of July dividends payable in Charleston, which, in accordance with our well-established custom, we have obtained from reliable sources :—

South Carolina Railroad Company, 3½ per cent.....	$203,683
Bank of Charleston, 3½ per cent.....	110,628
People's Bank, 5 per cent	50,000
Charleston Insurance and Trust Company, $5 per share.....	50,000
Charleston Gas Light Company, $1 25 per share	38,286
State Bank, 87½ cents per share.	35,000
Union Bank, $1 75 per share.....	35,000
Planters' and Mechanics' Bank, 87½ cents per share.....	35,000
Bank of South Carolina, $1 50 per share.....	33,333
Southwestern Railroad Bank, 75 cents per share.....	26,174
South Carolina Insurance Company, $2 50 per share.....	25,000
Total..	$642,104

STATISTICS OF TRADE AND COMMERCE.

WOOL TRADE.

The following from Messrs. Bond & Co.'s wool circular, of Boston, shows the imports of wool into Boston for the first half of the years—

	1855.	1856.	1857.	1858.	1859.	1860.
England.....	122,245	87,517	27,346	184,752	1,647,852	812,812
Buenos Ayres..	440,558	1,366,748	789,614	1,000,814	2,797,241	2,073,123
France.....	9,767	33,691	348,997	19,180	835,905	329,757
Turkey.....	1,382,537	1,390,480	1,812,187	1,272,671	1,740,344	990,909
Cape G. Hope.	117,683	183,427	371,864	799,310	1,952,457	3,197,937
Malta.....	.....	76,500	191,660	.....	.....	97,009
Chili and Peru.	1,526,568	1,647,082	1,756,961	2,523,459	2,199,190	1,504,145
Russia.....	.....	.....	291,054	.....	12,959	.....
East Indies ...	.....	.....	.....	64,218	258,962	231,599
Sundries.....	3,660	.....	2,810	68,405	78,592	123,595
Total.....	3,553,018	4,735,395	5,592,493	5,882,804	11,620,461	8,767,977

CLASSIFIED TABLE OF WOOLS IMPORTED INTO BOSTON FOR THE THREE YEARS PRECEDING AND THE THREE YEARS SUCCEEDING THE TARIFF OF 1857.

	Carpet.	Common.	Fine.		Carpet.	Common.	Fine.
1854..	9,149,000	2,685,000	1,609,000	1857..	9,281,000	4,448,000	4,217,000
1855..	5,775,000	1,207,000	264,000	1858..	6,291,000	1,369,000	2,690,000
1856..	6,656,000	835,000	931,000	1859..	7,724,000	3,597,000	6,856,000
Total.	21,580,000	4,677,000	2,804,000	Total.	23,296,000	9,409,000	13,963,000

VALUE OF OHIO FLEECE WOOL IN OCTOBER OF EACH YEAR FROM 1840 TO 1859.

	Fine.	Medium.	Coarse.		Fine.	Medium.	Coarse.
1840.....	45	36	31	1850.....	47	42	36
1841.....	50	45	40	1851.....	41	38	32
1842.....	price all round 33½ a 35			1852.....	49	45	40
1843.....	41	35	30	1853.....	55	50	43
1844.....	42	37	32½	1854.....	41	36	32½
1845.....	36½	30	26	1855.....	50	42	34
1846.....	34	30	26½	1856.....	55	47	37
1847.....	33½	29	25	1857.....	56	49	41
1848.....	32	28	24	1858.....	53	46	36
1849.....	41	37	32	1859.....	58	49	35

For 1857 we give the price in August, there having been no sales in October. This shows a falling off this year from last of about 3,000,000 lbs. First, in common clothing wools from France and England, these having advanced in Europe while they have barely held their own here. Secondly in coarse carpet wools from Buenos Ayres, Chili, and Turkey. On the other hand, the importation of fine wools from the Cape of Good Hope has increased over fifty per cent. Another table shows the actual prices obtained in this market for Ohio fleece wools for 20 years. By this it appears that in October, 1859, fine wools sold for 13c. per lb. more than the average price of the whole 20 years, and that the average price for the three years since July, 1857, during which wool costing 20c. and under has been admitted free, was 6c. per pound above the average of the three preceding years and 12c. above the average of the eleven years of the tariff of 1846. The proportionate value of medium wool does not vary mate-

rially from this. The third table shows that during the three years of free wool under 20c. the importation of common clothing wool has been 100 per cent, and of fine 400 per cent. larger than in the three years immediately preceding, while the increase in the importation of carpet wools has hardly been enough to notice. The second table shows an increase in the value of common wools. This we think is in a great measure owing to the fact that in consequence of large accumulations of this grade in France and England, made prior to 1857, and which is but just now reduced, European manufacturers have been able to supply our markets with goods made therefrom on better terms than the manufacturers of this country, as will be seen by the following extract from the export returns of the British government for the past three years:—

EXPORTS TO THE UNITED STATES.

	1857.	1858.	1859.
Cloths of all kinds, duffies and kerseymeres..pcs.	258,356	129,878	140,714
Mixed stuffs, flannels, blankets, and carpets..yds.	33,613,353	38,442,180	55,607,049

The first class of goods are mostly made of fine wool, and the second of low clothing and carpet wools. Now, allowing that it requires but one pound of raw wool, in average marketable condition, to make each yard of these goods, it appears that during the three years, we have imported from Great Britain alone 127,693,587 lbs. of wool in manufactured goods, while the entire importation of raw wool for the same time into Boston, of common clothing and carpet grades, has been 32,700,000 lbs., and into the United States probably not exceeding 60,000,000 lbs. The advance before noticed in these wools in Europe already begins to manifest itself in a decline in this class of goods from Great Britain to this country, while the same returns show a slight increase in exports of fine woolens hither during the current year. The severity of the past winter in England was fatal to a large portion of the flock in some sections, creating a scarcity of low combing wools, and creating a demand for the clip of Canada, which heretofore has been mostly consumed in this country.

SUGAR AND COFFEE IN HAYTI.

In 1776 the unrefined sugar of St. Domingo was estimated at 92,000,000 lbs., and the white sugar at 65,000,000 lbs. These two articles, without counting 18,000,000 lbs. syrup, brought in a revenue of from twenty-five to thirty million francs. This was the highest point of cultivation it reached since the importation of the sugar cane from Spain, in 1643. There was no change in the amount produced from '76 to '89, when it commenced declining, and continued the downward road until about 1815. In 1806, during the European blockade, a pound of white sugar was worth its weight in gold. It was then that the French chemists, stimulated by Napoleon, endeavored to find a substitute. Premiums were offered to those who should succeed in extracting sugar from native vegetables. The discovery of Mangraff, a Berlin chemist, was remembered. He it was who, in 1745, found that beet root contained sugar similar to that of the cane, and in as great proportion. The project was revived, and the manufacture of beet root sugar established, which has since regularly progressed. Under the first empire the amount produced reached very nearly 17,000,000 kilogrammes, and to-day it exceeds the enormous figure of 130,000,000 kilogrammes.

The amount of sugar annually consumed in Europe is estimated at 568,000,000 kilogrammes.

The great success which attended the beet root cultivation led the chemists to look round for a good substitute for coffee, which was first brought to the island in the year 1723. This plant, as is well known, was brought from Mocha, in Arabia, to Batavia, by the Dutch, and from there it was sent to Amsterdam, and a few grains distributed among the various sovereigns of Europe. Louis XIV. conceived the idea of sending it to the colonies, and accordingly it was first sent to Martinique, and afterwards to St. Domingo. No substitute has as yet been discovered which can at all rival its exquisite flavor. Delille used to say that he imagined he drank a sunbeam in every drop of coffee. Hayti exports annually to Europe and America 40,000,000 pounds. The discovery of a substitute, it may readily be supposed, would be very disastrous to the trade of Hayti.

DISTRIBUTION OF THE NAVY.

The principal use of the navy being to protect the interests of commerce, it is a matter of useful information to record their situation on the 1st of July throughout the world, as follows :—

HOME SQUADRON.

Steamers.	Tons.	Officers and men.	Guns.
Corvette Brooklyn	2,000	325	20
Fulton	698	110	5
Water Witch	378	110	4
Mohawk	450	110	4
Crusader	400	105	3
Pocahontas	850	150	5
Sailing vessels.			
Frigate Sabine	1,726	500	50
Sloop Saratoga	882	260	22
Sloop Savannah	1,726	300	54
Sloop-of-war St. Louis	700	240	20
" Preble	566	200	16
" Falmouth	708	100	12
Store-ship Release	327	50	1
Total	11,396	2,660	186
British forces on this station.....ships	21	3,470	820

MEDITERRANEAN SQUADRON.

Flag ship steamer Richmond (going out)	1,934	260	16
Steam gun-boat Iroquois	1,000	160	10
" " Pawnee (going out)	1,289	208	8
Total	4,223	620	34
British forces on this station.....vessels	22	5,786	532

PACIFIC SQUADRON.

Flag-ship, steamer Lancaster	2,600	500	18
Steam frigate Saranac	1,446	390	6
Steam gun-boat Wyoming	994	100	5
" " Narragansett	800	100	2
Sailing sloop-of-war St. Mary	958	250	20
" " Levant	792	230	20
" " Cyane	792	230	20
Total	5,786	1,710	91
British forces on this station.....vessels	12	2,845	281

AFRICAN SQUADRON.			
Steamers.			
San Jacinto	1,446	300	18
Mohican	994	160	10
Mystic	500	90	6
Sumpter	400	85	6
Sailing vessels.			
Corvette Constellation, (flag)	1,200	350	22
" Portsmouth	1,022	300	22
Marion, sloop, (bound home)	566	160	16
Total	6,128	1,445	95
British force on this station.....vessels	12	2,845	100
BRAZIL SQUADRON.			
Flag-ship, sailing frigate Congress	1,700	500	50
Brig Bainbridge, (ordered home)	250	80	6
Brig Dolphin	800	80	4
Steam gun-boat Seminole, (going out)	801	140	4
Steamer Pulaski	800	50	8
Total	3,851	850	72
British naval forces in the Brazils.....vessels	9	1,672	146
EAST INDIES SQUADRON.			
Flag-ship steamer Hartford	1,990	300	14
Side wheel steamer, Saginaw	400	120	4
Sailing sloop, John Adams	900	180	13
Steam gun-boat, Dacotah	1,085	100	5
Total	4,375	400	36
British forces on this station.....vessels	49	5,051	386
ON SPECIAL SERVICE.			
School ship, corvette Plymouth	989	240	23
Steam frigate, Niagara	4,580	450	12

The following table will give a good idea of the gradual increase and decrease in our naval forces abroad :—

SQUADRONS.

	Vessels.	Officers and men.	Guns.		Vessels.	Officers and men.	Guns.
HOME.				**EAST INDIA.**			
1860	13	2,660	186	1860	4	430	36
1859	6	1,315	125	1859	4	1,260	69
1857	3	1,000	100	1857	3	900	30
AFRICAN.				**MEDITERRANEAN.**			
1860	7	1,445	95	1860	3	620	54
1859	4	800	86	1859	2	810	62
1857	3	870	82	1857	3	980	43
PACIFIC.				**BRAZIL.**			
1860	7	1,710	98	1860	5	850	72
1859	6	1,621	122	1859	3	720	60
1857	5	1,200	100	1857	3	800	60

CANADA TRADE.

The following is a comparative statement of the value of imports into Canada, and the duties collected thereon, during the respective half years ending on the 30th June, 1859 and 1860 :—

	Value.	Duty.
Province of Canada, 1859	$17,729,533	$2,347,845
" " 1860	14,343,271	2,123,904
Excess of 1859 over 1860	$3,389,262	$223,941

CUBA AND PORTO RICO.

The Cuban *Messenger* remarks:—In regard to our own island, we will here give the official reports of the total revenues during the first four months of the present year, compared with the result obtained during the same period of 1859, which is as follows:—

CUSTOM-HOUSE REVENUES—ON IMPORTS AND EXPORTS.

Month.	1859.	1860.
January	$803,939 93½	$861,387 31½
February	1,010,002 78	1,068,784 70
March	1,156,009 94	1,263,028 84
April	1,061,933 93½	1,169,844 49½
Total	$4,031,586 59	$4,363,635 35½
Revenue of 1859		4,031,586 59
Difference in favor of 1860		$332,048 76½

LAND REVENUES.

January	$590,548 18½	$557,161 35½
February	508,161 12½	481,920 51
March	763,772 48½	679,753 11
April	665,075 81	501,280 74½
Total	$2,527,552 55	$2,220,115 71½
Revenue of 1859		2,527,552 55
Difference against 1860		$307,436 83½

TOTAL REVENUES.

January	$1,394,183 12	$1,418,548 66½
February	1,518,163 90½	1,550,705 21
March	1,919,782 37½	1,943,371 95
April	1,727,009 74½	1,671,125 23½
Total	$6,559,139 14	$6,583,751 06
Revenue of 1859		6,559,913 14
Difference in favor of 1860		$24,611 92

As to Puerto Rico, the result is not as favorable, but it must be remembered that the prosperity and business of that island was unprecedented in 1858, when the total amount of the imports and exports reached the enormous sum of $12,815,519. The comparative tables of 1858 and 1859 are as follows:—

Years.	Imports.	Exports.
1858	$7,456,863	$5,387,155
1859	6,764,673	4,289,498
Decrease in 1859	$691,690	$1,067,657

In consequence of this, the revenues of the island were in 1859 about $200,000 less than in 1858. This difference can be easily understood when we are reminded of the fact that the number of vessels arriving and leaving the different ports of that island in 1859, was much smaller than the year previous, as is shown by the following table:—

Years.	Arrivals.	Departures.
1858	1,494	1,376
1859	1,378	1,277
Difference against 1859	107	93

The commerce and productions of both islands are rapidly increasing; and, as the government is disposed to encourage all sources of public wealth, it is reasonable to expect that the revenues will increase in the same proportion as the commercial and agricultural interests become more extensive.

SILK.

The Japanese say they can supply silk to rival the Chinese. In the present progress of affairs new supplies may soon be wanted.

Raw silk, free of duty, was imported in the fiscal year 1858–9, to the value of $1,330,890, of which $701.182 came direct from China, and $630,000 worth through England and France. What share of this last was Italian cannot be ascertained. Raw silk, paying duty, was imported to the value of $288,267, of which but $4,733 came directly from China. The import of the previous fiscal year was nearly the same, a larger proportion coming direct from China; but, in previous years, the quantity was less by about half a million dollars.

In 1855-6 the value of raw silk imported..	$991,234
In 1856-7 " " "	953,734
In 1857-8 " " "	1,540,195
In 1858-9 " " "	1,619,157

The following is a technical statement of qualities of Chinese raw silk imported and consumed in the United States for the past two calendar years :—

	Imports.		Consumption.	
	1858.	1859.	1858.	1859.
Teatlees.....bales	263	563	298	530
Taysaams.....	1,846	2,400	2,070	2,264
Canton	2,279	3,268	2,320	2,216
Thrown, etc.....	1,387	546	1,392	512
Total.....	5,675	6,777	5,990	5,522

The export trade to China in the fiscal year 1858–9, was largely of cottons, nearly $3,000,000 worth of cotton goods, in every form, being sent out, of which $2,500,000 was plain brown cottons.

EXPORT OF DOMESTIC COTTONS TO CHINA.

	1856–7.	1857–8.	1858–9.
Brown and white cottons.....	$955,768	$1,174,928	$2,662,937
Cotton duck.....	6,435	8,437	23,758
Printed and colored cottons.	131,815	631,149	143,330
Total.....	$1,094,018	$1,814,514	$2,830,025

The following is the account of the export of domestic cottons to China and the East Indies for five calendar years, as made up by the commercial journals:

	New York.	Boston.*	Total.		New York.	Boston.	Total.
1855..pkgs	11,929	6,110	18,039	1858.....	43,419	23,664	64,083
1856.....	17,674	17,067	34,741	1859.....	53,662	16,566	70,228
1857.....	12,676	15,341	28,017				

The average value of these is somewhat above $55 the package, making the export value nearly $400,000.

TOTAL VALUE OF EXPORTS TO CHINA FOR THREE YEARS.

1856–7.....	$2,019,900	$2,375,230	$4,395,130
1857–8.....	3,007,748	2,689,603	5,679,351
1858–9.....	4,233,016	2,894,183	7,127,199

* The exportation from Boston is to the East Indies, including China, while at New York the item covers only the shipments direct to China.

MOUTHS OF THE MISSISSIPPI.

Captain HUMPHREYS, of the War Department at Washington, in a paper upon the "Bars of the Mississippi," says, in regard to what is now doing at the Mouth of the Mississippi, under the auspices of the department:—In the latter part of 1858 those parties (CRAIG & RIGHTER) refused to comply further with their contracts to maintain the depth of eighteen feet in the channels for a period of four-and-a-half years, and, by their failure, the winter of 1858-9 passed without any work being done upon the bars. The War Department was obliged to enter into a new contract with other contractors for deepening the Southwest Pass; but these likewise failed to carry out their contract. The War Department, in accordance with law, opened the work to competition as to the plans and methods to be used, as well as to cost, merely requiring that a certain depth should be obtained and maintained. The contractors were at liberty to use any plan, any process, any means that they chose to stir up the bottom. They were at liberty to use Mr. ELLET'S plan if they thought fit, and probably would have done so had they considered it the most economical and effectual plan. Having, however, failed to secure, in that way, a continuation of the work, the department was forced to resort to a contract for the use of the dredges and appliances, and its officers are now, for the first time since 1839, with a remnant ($70,000) of the appropriation of 1856, conducting the operation of deepening the channels. The plan used is that of stirring up the bottom of the channel during the river flood, and leaving the current of the river to carry it seaward to deep water. It is one that has been successfully tried.

It may be remarked, that the requirement of the appropriation act of 1856, that the work must be done by contract, has been one source of the defect of continuity in the operation, and the failure to maintain the increased depth after it was attained; for the failure of contractors to continue the deepening could only be ascertained after the shoaling, arising from neglect, had occurred. Then new contracts had to be entered into, and thus additional time was lost during the season for successful dredging and of commercial activity. But no plan whatever will prove of any practical benefit to navigation unless a permanent fund be provided, untrammeled by restrictions as to the mode of expenditure, from which a sufficient sum annually can be relied upon for the continuous prosecution of the work after the channel has once been opened. This can be effected by dredging with harrows or scrapers; that is, tearing up the bottom of the channel, and leaving the current of the river to carry off the loosened material, other and more powerful means being applied to the mud lumps. This plan is in accordance with the law under which the bar is formed, as demonstrated by experiments, in all conditions of the river, made by my direction under the authority of the Topographical Bureau.

TOBACCO—ITS GROWTH AND CONSUMPTION.

The last annual report on foreign commerce, from the State Department, gives very full and explicit information on the subject of the growth, manufacture, and consumption of tobacco in foreign countries, where we have also a market for our own tobacco. The low prices of the wine crop for some years, and also the failures of the crop, induced many large owners of vinyards in Germany to convert, at great expense, their vinyards into tobacco fields—tobacco then

bearing a good price. But the last two or three years have proved excellent wine years, and the prices of tobacco have been considerably reduced. So the tobacco fields are being turned back into vinyards.

German tobacco has been bought by American speculators and exported to the United States, where it is manufactured into cigars and re-exported to Europe as American tobacco. The American traders found after a while that they were not buying even German tobacco, but beet and turnip leaves, with which it is extensively adulterated. German cigars, made partly of beet and turnip leaves, are also exported into the United States and to other countries. Belgium and Holland and the Zollverein are the chief consumers of the beet and turnip leaf tobacco, and the article stands in the way of the consumption of the pure American tobacco. The quantity of German tobacco now on hand, including the beet and turnip leaf crops, is represented as immense. It is held back for higher prices. One single house has five hundred quintals of leaves on hand, waiting for a rise in the leaf market.

The American tobacco which is manufactured into snuff is mixed with five per cent of German tobacco, in consequence of which all snuff manufactured at Bingen, etc., is subject to a transit duty when exported to Northern Germany. Thus the American tobacco, which has already paid duty, pays duty a second time. "This," writes one of our consuls, "is a splendid specimen of dis-united Germany." The United States will be a perfect paradise for custom-house officials under a like system.

In this report there are fifty consular dispatches respecting the tobacco trade of the United States in various parts of the world. The tariffs upon tobacco, and the monopoly regulations concerning it, and laws affecting its price to the consumer, are given in this report with much detail.

BRITISH EXCHANGE OF COTTON GOODS FOR COTTON.

The *Cotton Supply* journal gives the following statement of the exchanges of cotton goods by England in 1859, for raw cotton, with its two great sources of cotton supply, India and the United States:—

EXCHANGE WITH INDIA IN 1859.

Export of cotton goods to India.....lbs.	193,603,270
Import of raw cotton from India.....	192,330,880
Excess of export.....	1,272,390

EXCHANGE WITH THE UNITED STATES IN 1859.

Export of cotton goods, 1859.....	45,029,411
Import of raw cotton, 1859.....	961,707,264
Excess of imports.....	916,677,853

It appears that India and China together took last year over two-fifths of all the British exports of cotton manufactures. The statements are thus given:—

BRITISH EXPORTS OF COTTON GOODS IN 1859.

To India.....yards	968,016,360
China, etc.,	194,335,622
Total to India and China.....	1,162,351,988
To all the rest of the world.....	1,401,093,410

ANNUAL COFFEE CIRCULAR.

Messrs. LONSDALE, of New Orleans, give the following figures in their annual circular :—

EXPORTS OF COFFEE TO THE UNITED STATES FROM RIO DE JANEIRO, FROM MAY 1, 1859, TO MAY 1, 1860.

New Orleans.....bags	272,979	Other United States ports...	155,212
New York.....	256,769		
Baltimore.....	171,935	Total to U. S. in 1859-60.	945,413
Philadelphia.....	88,518	" " 1858-59.	1,252,948
		" " 1857-58.	966,029

TOTAL EXPORTS FROM RIO TO ALL PARTS OF THE WORLD.

From 1st of May, 1859, to 1st of May, 1860.....	1,959,927
" " 1858 " 1859.....	1,875,284
" " 1857 " 1858.....	1,907,562
Estimated stock of coffee on hand at Rio on 1st of May, 1860.....	60,000
Stock of Rio coffee on hand at all the importing ports of the United States is estimated at, this day.....	43,000
Same period last year.....	103,800
Decrease of stock this year in United States.....	60,800
Stock on hand in United States July 1, 1859.....	103,800
Received in United States in 1859 and 1860.....	945,000
Total.....	1,048,800
Stock on hand in United States July 1, 1860.....	43,000
Sales for consumption in the United States in 1859-60.....	1,005,800
" " " " 1858-59.....	1,209,000
" " " " 1857-58.....	1,116,000
Decrease of sales for consumption this year, compared with 1857-58	110,200
" " " " " 1858-59	203,200

EXPORTS FROM NEW ORLEANS.

The *Crescent* of Wednesday says :—The value of exports of produce from this port for the quarter ending on the 31st of March last, are larger than any on record. The increase for the three-quarters of the fiscal year of 1859-60 is nearly $10,000,000 over the three-quarters of 1858-59 :—

EXPORTS FOR THE QUARTERS ENDING

Sept. 30, 1858.....	$11,826,595	Sept. 30, 1859.....	$9,064,209
Dec. 31, 1858.....	28,822,809	Dec. 31, 1859.....	32,351,775
Mch. 31, 1859.....	31,057,053	Mch. 31, 1860.....	40,933,323
Total.....	$72,706,458	Total.....	$82,349,307

EXPORTS OF CHARLESTON, S. C., QUARTER TO JUNE 30, 1860.

	Quantities.	Bales.	Value.
Wood.....feet	1,720,692		$25,480
Rosin and turpentine.....bbls.	15,935		86,882
Spirits.....galls.	80,000		41,513
Cotton, Sea Island.....lbs.	2,923,554	89,567	4,638,783
" upland.....	85,208,489		
Rice.....bush.	9,464		195,780
" .....tierces	7,340		
Total exports.....			$4,960,360
" imports.....			330,723

THE COTTON TRADE.

The *Cotton Supply Reporter*, an English periodical, gives in its last issue the following statement of the exchanges of cotton goods by England, in 1855, for raw cotton, with its two great sources of cotton supply, India and the United States. To India the export was greater than the import in actual weight:—

Export of cotton goods to India, 1859.....lbs.	193,603,270
Import of raw cotton, 1859.....	192,330,880
Excess of exports.....	1,272,390

EXCHANGE WITH THE UNITED STATES.

Export of cotton goods, 1859.....lbs.	45,029,411
Import of raw cotton, 1859.....	961,707,264
Excess of imports.....	916,677,853

The journal from which this statement is taken very justly argues that it is better for England to cultivate the Asiatic market for its cotton goods, instead of the American, in which argument we heartily concur. Some further statements of the vastness of the Asiatic market for manufactures are given in the same connection, as follows:—

Export of cotton goods to India and China, 1859.....yards	1,162,351,982
Export of cotton goods to all the rest of the world, 1859.....	1,401,093,410

India and China together thus take almost as much as all the rest of the world of English manufactures of cotton. Of this vast stock to Asia, India takes 968,016,350 yards, leaving for China but 194,340,000 yards. It is likely that our own export to China is quite equal to this, if not in excess. American drills are far superior, in Chinese estimation, to any British cloths of the same description, and the market for them is now very rapidly increasing.

STOCK OF WHEAT.

The Buffalo *Commercial Advertiser* gives the following estimate of the stock of wheat July 12. There are other estimates which make the quantity nearer 3,000,000 bushels. We put this on record, however, as a matter of interest at this time:—

Stock of wheat afloat on New York canals, destined for tide-water, not including shipments from interior, July 11. bush.		472,644
Stock of wheat afloat on lakes, destined for Buffalo and Oswego, July 11.....		271,982
Stock in store in Buffalo, June 23.....	243,289	
Add receipts June 23 to July 14.....	619,709	
Total.....	860,998	
Deduct export by canal from June 23 to July 14.....	649,302	
		211,696
Stock in store at Oswego, July 11, 1860.....		188,586
Stock in store at Chicago, July 12, 1860.....		64,922
Stock in store at Milwaukee, July 12, 1860.....		160,000
Estimated stock in store in New York, July 14.....		575,000
" " Albany and Troy, July 12.....		75,000
" " Kenosha, Racine, St. Joseph, Waukegan, Toledo, and Detroit.....		200,000
Total stock of wheat as above.....		2,219,830

AFRICAN LABORERS.

The correspondence of the Secretary of State with the foreign consuls contains the following in relation to the French arrangements for African laborers, from CHARLES KIMBALL, Esq., consul at Point a Pitre, Gaspe :—

Having received your correspondence of 17th June last, enclosing copy of a letter from WM. MORGAN, Esq., United States Consul at Marseilles, concerning the emigration of negroes to the French colonies from the coast of Africa, I have the honor to inform you that I find, according to the rules of the government, it is impossible for the authorities here to answer any communications of importance on the subject until my letter should be sent to the minister in France. Therefore the information I shall give is, in my opinion, as near the position of affairs as can be ascertained.

The house of REGIS, of Marseilles, has a contract with the imperial government of France simply to procure and transport to the islands of Guadaloupe and Martinique a certain number of negroes. The procuring of the negroes is done under the surveillance of an officer of the French marine service, with the aid of an interpreter. The negroes are made to understand the articles of agreement with the French government; if they wish to accept those conditions, then M. REGIS, if said negroes are held as prisoners of war by the African chiefs, pay for each from 30 to 50 francs; or, if the negroes are at liberty, he pays them the said sum. From there the negro is taken to the house of REGIS and fed at his expense, and according to the rations allowed by the French government, until the ship may be ready to sail

The vessel destined for the transportation of the emigrants must first be surveyed in France by the competent authorities, and a certificate given to the house of REGIS as to the capacity of said vessel; also the amount of wood to be put on board for the voyage. The vessel once on the coast of Africa, the emigrants are placed on board under the certificate received from France, and under the direction of an officer of the French marine. On the voyage to the Island the vessel is under the surveillance of an officer and doctor, and an interpreter appointed by the government. Arriving here the negroes are transferred to the commissioners of emigration likewise appointed from France. These officers are obliged to report directly to France, on the arrival of the ship here, the state of health, etc., of the emigrants. All being in good health, the commissioners commence to distribute the negroes to the planters, with reference to as equal a distribution as possible.

When on the plantation, they are under the same laws as the coolies, except the negroes are engaged for ten years and the coolies for five years. At the end of their engagement they have the right to demand of the French government to be sent to Africa. On the plantations the negroes are to be paid regularly every Sunday morning for their week's work, at from 12 to 20 francs per day, according to age and sex. Food is provided by the planter according to the code of Napoleon; also two suites of clothes a year. Planters have no right to work the emigrants at night or Sundays without the emigrants themselves agree to the same, and all such extra work must be paid for as soon as done. To prevent all the abuses on the plantations one of the above-mentioned commissioners visits, at least twice a month, each plantation. Before the courts of justice the emigrant has his rights as well as any other citizen. As we have had but two convoys, about 650 each, which, I believe, are all satisfied, as also the planters. The crops of the island are fast increasing with the emigration.

CANADIAN RECIPROCITY.

The Board of Trade of Chicago, at a special meeting held on the 18th, report favorably in regard to the effects of the reciprocity treaty. They give the following facts as reasons for the maintenance of the treaty :—

		Imports.	Exports.
Free goods from Canada in	1857.....	$222,229	$1,788,968
" "	1858.....	83,900	1,091,200

NAUTICAL INTELLIGENCE.

THE HARBOR OF NEW YORK.

Some time ago, Mr. CHARLES H. HASWELL, marine engineer, proceeded to make observations on the deposits in the harbor; he did not propose to consider the encroachment upon the boundaries thereof, by the extension of bulkheads and piers, and the injurious effects therefrom, for the two-fold fact that the necessity of restraining these encroachments had become so manifest to the public at that particular time that not only had the attention of our Legislature been called to the subject, but it was then receiving the consideration of a committe appointed for the purpose of investigating and reporting thereon; and secondly, that the operation of such encroachment was to investigate the reduction of the tidal volume of the harbor. Accordingly, in a communication to the Board of Underwriters of New York, he thus lucidly and elaborately reports:—"As a prelude to my task, I assumed it to be indisputable that the bar at Sandy Hook was, in its general features, like the bars of all tidal rivers, and that it presented a series of irregular obstructions stretching across the entrance into the lower bay, with a varying and less depth of water upon it than in the channels within it. The causes admitted to produce this general result are numerous, but the following apply, in my opinion, peculiarly to the locality under consideration:—

"1st. The arrest of the current of the last of the ebb tide from the bay, where it meets the first of the sea flood when it surrenders the *detritus* it holds in suspension.

"2d. The difference of the flood and ebb currents in their directions.

"3d. The action of ground swells from the sea, which, if heavy and flowing from the southward and eastward, deposit sand and gravel upon the bar, and at all times, when aided by the current of the flood, within the entrance thereof.

"4th. The occasional diminution of the back water of the bays and rivers leading thereto from drouth, and the reduction of the tidal volume by the presence of ice upon flats and the shores.

"5th. A reduction of the tidal area by the constant accretion of *detritus* upon the shores.

"The first three positions are similar, in a great degree, to those entertained by E. K. CALVER, R. N.; the fifth one, by Sir HENRY DE LA BECHE.

"In the prosecution of my observations, I selected sixteen locations which I thought best suited to furnish me with the elements desired, and providing myself with an equal number of bottles of like capacity, (30 cubic inches,) I repeatedly filled one of them with water from each of these localities at half-tide, (both ebb and flow,) both in dry and wet weather and at different seasons of the year; such water was then filtered, and the residuum weighed and noted in grains, the average results of which, deduced from the operations of five years, furnish the following:—

WEIGHT, IN GRAINS, OF DEPOSITS IN 30 CUBIC INCHES OF WATER TAKEN FROM THE UNDERMENTIONED LOCALITIES.

Sandy Hook	.109	Manhattanville	.578
Narrows	.265	Harlem Bridge	1 031
Robbins' Reef	.367	Hell Gate	1.093
Ellis' Island	.811	Thirtieth street, east	1.265
Battery	1.687	Twenty-third-street, east	2.968
Liberty-street	6.927	Grand-street	4.000
Canal street	8.581	Wall-street	5.187
Thirtieth-street, west	.937	Broad-street	6.875
			42.181

"The mean weight of deposits is thus found to be 2.633 grains in every 30 cubic inches of water examined; (42.131 divided by 16 equal to 2 633.) Excluding therefrom all the city localities, except one upon each side of it, for the purpose of arriving at a mean of the average presence of *silt* in the water of our harbor above the Narrows, the following result is obtained:—

Narrows	.265	Manhattanville	.578
Robbins' Reef	.367	Harlem Bridge	1.031
Ellis' Island	.811	Grand-street	4.000
Battery	1.687	Thirtieth-street, west	.937
			9.676

"From which it appears that the average annual flow of *silt* in the rivers bordering this city reaches the enormous rate of 1.209 grains in every 30 cubic inches of water (9.676 divided by 8 equal to 1.209;) and assuming the quantity of the former to be equal to 125 pounds per cubic foot, a cubic inch of it will weigh .072 pound. The volume of this deposit compared with water, is, therefore, as 1 to 12,565.

"Confining my observations to the city of New York alone, and taking the deposits shown in the water from the several localities around the city, the mean amount of *silt* in every 30 cubic inches of water is as follows:—

Battery	1.687	Grand-street	4.000
Liberty-street	6.937	Wall-street	5.187
Canal-street	8.531	Broad-street	6.375
Thirtieth-street, east	1.265	Thirtieth-street, west	.937
Twenty-third-street, east	2.968		
			37.887

"The average of these deposits is 37.887 divided by 9 equal to 4.209; and hence, by the elements before given, it appears that the volume of the deposit from the water in the slips of this city between Thirtieth-street (east and west) and the Battery, when compared with that of the water (at half-tide,) is as 1 to 3,610. Startling as these results appear, it must be borne in mind that they do not give a full exhibition of the facts of the case, for the observations made were necessarily confined to the presence of *silt*, and embraced only that portion which was retained in suspension by the flow of currents; whilst the deposit of *detritus* from the flow of gravel, sand, &c., could not be arrived at, unless by a different system of observation, and it is, consequently, not embraced in the above results."

SHIPS BUILDING ON THE LAKES.

The building of vessels on the lakes for Eastern account has come to be a regular business; one has been recently launched at Cleveland for Boston account. She is 95 feet keel, 26 feet beam, and 8½ feet hold, and registers about 200 tons. She costs about $10,000, and is owned one-half by her commander, Captain LEWIS, of Boston, and one-half in Albany. She is christened the "Lewis Spannier," after LEWIS SPANNIER, of Albany, who presents her with a magnificent suit of colors. Experienced builders speak in the highest possible terms of the model and finish of this vessel, and her captain is delighted.

The advantage to Boston merchants of building their vessels here may be understood from the fact that ship plank which is there worth $60 per thousand, can be had here, of better quality, for $18 to $20; again, spars which cost $40 here, cannot be had there for less than $100. Then, too, the vessel may make $1,000 in freight of lumber on her voyage. She will be launched in full rig and with anchors, chains, &c., complete. She will load at Sandusky with lumber for Boston.

LAKE TIDES.

The elevation of Lake Huron is 579 feet 7 inches, and that of Lake Superior 623 feet 7 inches above the level of the Atlantic Ocean. But that there are fluctuations in the water-level of the lakes is well established. These changes are of three kinds. First. A gradual rise and fall, spreading over a series of years. Secondly. The temporary changes due to storms and prevailing winds; and thirdly, sudden and temporary changes, attributed by some to subaqueous action, by others to changes in the pressure of the atmosphere, and various other causes. In some parts of the lakes a tide is perceptible, (as at Green Bay, Wisconsin,) in other parts the changes are said to be periodical and quite uniform. It is to be hoped that simultaneous observations, for a series of years, extending over the whole lake region, and supported by liberal appropriations, will ultimately throw more light upon this problem of high scientific interest, than the best topographical engineers now possess. A correct survey and delineation of the great inland seas of our country is demanded by the interests of commerce and navigation, and, in case of a war with our neighbors, would be of inestimable value.

TONNAGE ON THE LAKES.

The following synopsis will exhibit the vessels in commission on the lakes for the years 1858 and 1859, and will give some idea of the extent of the trade on these waters:—

	1858.			1859.		
	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.
Steamers	130	72,108	$3,963,800	131	66,834	$2,846,137
Propellers	182	65,271	3,587,900	197	66,793	2,844,250
Barks	57	22,817	707,500	59	22,604	542,000
Brigs	97	27,121	628,900	99	27,808	494,200
Schooners and sloops	974	200,323	6,383,900	1,001	192,518	4,810,150
Total	1,442	387,740	$15,212,000	1,487	376,557	$11,536,737

It is believed that the tonnage and value of this year will exceed that of 1858.

DISASTERS ON THE LAKES.

Lake Michigan has been more free from wrecks than Lake Erie. Interesting data are furnished by the statements of annual losses by marine disasters on the lakes. The last four years exhibit the following figures:—

Years.	Losses.	Years.	Losses.
1856	$3,126,744	1858	$732,232
1857	1,887,935	1859	1,020,100

The losses by screw propellers during ten years of lake business, show first an increase of the use of this kind of vessel, and second, the decrease in disasters as navigation has improved, and knowledge of managing propellers has advanced.

THE NEW ROUTE BETWEEN THE WEST AND ENGLAND.

New York has a new competitor for Western trade. The immense harvests of the West must find an outlet, and acting upon the apparent advantages to be derived from her trade, a line of British steamships has already been established between Portland and Liverpool. The Grand Trunk Railway will carry a large portion of the produce to these steamers, freighting them at once, and giving the farmers an advantage in speedy returns over New York port, where vessels are now scarce.

NEW LIGHTS AT CIVITA VECCHIA AND ANCONA.

Official information has been received at this office, from the Ministry of Commerce and Public Works of his Holiness the Pope, that two new lighthouses have recently been put in operation within the dominions of the Church—one at Civita Vecchia, and the other at Ancona. The figure and height of the lighthouses are not given, but they are both illuminated with the Fresnel apparatus, and are revolving white lights, the former eclipsed once in 40 seconds, and the latter once in 45 seconds. By order,

R. SEMMES, Secretary.

WASHINGTON, July 26, 1860.

MONTAUK POINT LIGHTHOUSE, LONG ISLAND, N. Y.

The repairs on the Montauk Point Lighthouse will be completed, the 1st order Fresnel lens restored to its place, and relighted at sunset on the 10th of October, 1860. The interval between the flashes will be the same as before, (2 minutes,) but about 25 per cent more of light will be visible than formerly. A new keepers' dwelling, which will be painted brown, has been built on the hill adjoining the tower. The other land marks are the same as before. By order of the Lighthouse Board,

WM. F. SMITH, Secretary.

WASHINGTON, July 31, 1860.

LIGHTHOUSE ON MERRILL SHELL BANK, COAST OF MISSISSIPPI,

INSTEAD OF THE LIGHT-VESSEL.

Official information has been received at this office from Lieut. W. H. STEVENS, Corps of Engineers, that a lighthouse on a screw-pile foundation has been erected on the shoal, and to mark the position heretofore occupied by the light-vessel at Merrill's Shell Bank. The foundation is square in plan, and is composed of iron screw-piles; is surmounted by a wooden superstructure, with a lantern above its center. The height of the focal plane is about 45 feet above mean sea level. The illuminating apparatus is a lens of the fourth order of the system of Fresnel, showing a fixed light of the natural color, which in ordinary states of the weather, should be visible from the deck of a vessel (ten feet above the water) about eleven nautical miles. The lighthouse will be lighted up for the first time at sundown on the 10th of August next, and will be kept burning during that and every night thereafter until further orders. On the same day, (August 10,) the Merrill Shell Bank light-vessel will be removed from her station, and will not be replaced. By order of the Lighthouse Board,

WM. F. SMITH, Engineer, Secretary.

WASHINGTON, July 9, 1860.

SINGLE REVOLVING LIGHT IN THE GULL STREAM, ENGLAND.

GULL STREAM LIGHTHOUSE.

The Corporation of the Trinity-house of London has given notice, that on and after the night of the 30th of June, the character of the lights in the Gull Stream light-vessel will be altered, and a single quick revolving white light, showing a flash every twenty seconds, will be substituted for the two horizontal fixed lights at present exhibited. A single ball will be shown at the masthead by day.

NORTH FORELAND LIGHT.

Also, that on and after the 4th day of June, in order to enable vessels at night to keep to the eastward of Margate Sand, a red strip of light would be exhibited from the lantern of the North Foreland lighthouse, in a direction from N. by W. ½ W. to N. ½ E., to show from the Tongue light-vessel to one cable's length east of Margate Sand. By order,

R. SEMMES, Secretary.

WASHINGTON, July 21, 1860.

POSTAL DEPARTMENT.

LOCAL DISPATCH POSTS SUPPRESSED.

POST-OFFICE DEPARTMENT, APPOINTMENT-OFFICE, July 14, 1860.

SIR:—I am directed by the Postmaster-General to transmit to you the enclosed copy of an order, made this day, declaring the streets in New York city post routes, and to request you to have the same published for the information of all concerned.

As the act of 15th June, 1860, limits the carriers' fee for the delivery of letters to one cent, it becomes necessary, independently of other considerations, for the department, in order to sustain the carrier system, to take charge of the whole business of letter carrying in New York. Therefore, in promulgating the order of the Postmaster-General, you will at the same time give notice of his determination rigidly to enforce the laws against any and all private carriers or expresses in the city, from and after the 1st proximo. Very respectfully, your obedient servant. (Signed)

HORATIO KING.

Hon. JOHN A. DIX, Postmaster, New York.

NOTICE TO NEW YORK LETTER CARRIERS.

POST-OFFICE DEPARTMENT, July 14, 1860.

Agreeably to the authority conferred by the tenth section of the act of Congress of 3d March, 1851, entitled "An act to reduce and modify the rates of postage in the United States and for other purposes," it is hereby ordered that all the avenues, streets, lanes, alleys, roads, and highways in all that part of the city of New York lying south of and below 55th (Fifty-fifth) street, including that street, be and the same are hereby established as post roads. This order to take effect 1st August, 1860. (Signed)

J. HOLT, Postmaster-General.

THE NEWSPAPER WINDOW AT THE LONDON POST-OFFICE.

It was a quarter before six when they crossed the Hall—six being the latest hour at which newspapers can be posted without fee.

It was then just drizzling newspapers. The great window of that department being thrown open, the first black fringe of a thunder-cloud of newspapers impending over the Post-office was discharging itself fitfully—now in large drops, now in little; now in sudden plumps, now stopping altogether. By degrees it began to rain hard; by fast degrees the storm came on harder and harder, until it blew, rained, hailed, snowed, newspapers. A fountain of newspapers played in at the window. Water-spouts of newspapers broke from enormous sacks, and engulphed the men inside. A prodigious main of newspapers, at the Newspaper River Head, seemed to be turned on, threatening destruction to the miserable Post-office.

The Post-office was so full already, that the window foamed at the mouth with newspapers. Newspapers flew out like froth, and were tumbled in again by the bystanders. All the boys in London seemed to have gone mad, and to be besieging the Post-office with newspapers. Now and then there was a girl; now a woman; now and then a weak old man; but as the minute hand of the clock crept near six, such a torrent of newspapers came tumbling in together pell-mell, head over heels, one above another, that the giddy head looking on chiefly wondered why the boys, springing over one another's heads and flying the garter into the Post office with the enthusiasm of the corps of acrobats at M. FRANCONI'S, didn't post themselves nightly along with the newspapers, and get delivered all over the world.

Suddenly it struck six. Shut, Sesame! Perfectly still weather. Nobody there. No token of the late storm—not a soul, too late!

But what a chaos within! Men up to their knees in newspapers on great platforms; men gardening among newspapers with rakes; men digging and delving among newspapers as if a new description of rock had been blasted into those fragments; men going up and down a gigantic trap—an ascending and descending-room worked by a steam engine—still taking with them nothing but newspapers. All the history of the time, all the chronicled births, deaths, and marriages, all the crimes, all the accidents, all the vanities, all the changes, all the realities, all the civilized earth, heaped up, parcelled out, carried about, knocked down, cut, shuffled, dealt, played up again, and passed from hand to hand, in an apparently interminable and hopeless confusion, but really in a system of admirable order, certainty, and simplicity, pursued six nights every week, all through the rolling year.

JOURNAL OF INSURANCE.

INSURANCE DIVIDENDS.

The following table embraces the dividends declared by the fire insurance companies of this city for the months of June and July, 1860 :—

JUNE DIVIDENDS.

Companies.	Capital.	Per cent.	Dividend.
Bowery	$300,000	10	$30,000
Howard	250,000	10	25,000
Manhattan	250,000	10	25,000
North American	250,000	5	12,500
Total	$1,050,000		$92,500

JULY DIVIDENDS.

Ætna	$200,000	5	$10,000
Adriatic	150,000	5	7,500
American (also Scrip dividend of 50 per cent).	200,000	3½	7,000
Arctic	250,000	6.	15,000
Brevoort	150,000	..	.....
Brooklyn	102,000	10	10,200
Citizens	150,000	12½	18,750
Clinton	250,000	7	17,500
Columbia	200,000	..	.....
Commerce	200,000	8	16,000
Commonwealth	250,000	6	15,000
Commercial	200,000	8	16,000
Continental (also Scrip dividend of 45 per cent)	500,000	7	35,000
East River	150,000	6	9,000
Empire City	200,000	7	14,000
Excelsior	200,000	..	.....
Fulton	200,000	10	20,000
Gebhard	200,000	5	10,000
Goodhue	200,000	6	12,000
Hamilton	150,000	4	6,000
Hanover	200,000	6	12,000
Harmony	150,000	5	7,500
Hope	150,000	5	7,500
Humboldt	200,000	..	.....
Home	1,000,000	6	60,000
Importers and Traders'	200,000	4	8,000
Jersey City	150,000	5	7,500
Kings County	150,000	..	.....
Knickerbocker	280,000	6	16,800
Lafayette	150,000	5	7,500
Lamar	300,000	..	.....

Companies.	Capital.	Per cent.	Dividend.
Long Island	200,000	10	20,000
Market (also Scrip dividend of 33⅓ per cent)	200,000	12	24,000
Mechanics and Traders'	200,000	10	20,000
Mechanics'	150,000	7	10,500
Mercantile	200,000	6	12,000
Merchants'	200,000	10	20,000
Metropolitan	800,000	..	.. ..
Montauk	150,000	5	7,500
Nassau	150,000	10	15,000
National	200,000	10	20,000
New Amsterdam	200,000	8	16,000
New York Equitable	210,000	10	21,000
New World	200,000	5	10,000
Pacific	200,000	12	24,000
Park	200,000	10	20,000
People's	150,000	4	6,000
Relief	150,000	8	12,000
Republic	150,000	6	9,000
Resolute (also Scrip dividend of 33⅓ per cent)	200,000	5	10,000
Standard	200,000	5	10,000
Tradesmen's	150,000	4	6,000
United States	250,000	5	12,500
Washington	200,000	5	10,000
Williamsburg City	150,000	7	10,500
Total, July	$11,592,000		$691,750
Total, June	1,050,000		92,500
Grand total	$12,642,000		$784,250

NEW HAMPSHIRE FIRE INSURANCE COMPANIES.

SYNOPSIS OF FIRE INSURANCE COMPANIES, FROM REPORT OF INSURANCE COMMISSIONER TO THE GOVERNOR, JUNE, 1860.

Companies.	Amount of property at risk.	Amount of premium notes.	Amount of cash premiums.	Amount of losses.	Amount of assessments.
Rockingham, Exeter	1,022,778	99,457 60	568 83	3,203 70	11,147 56
Atlantic, Exeter	3,342,006	88,129 15	3,107 84	4,744 62	.....
Cochecho, Dover	992,831	81 475 44	3,431 74	3,331 77	629 92
Belknap, Laconia	2,809,194	200,767 95	1,902 75	10,206 10	13,343 09
Equitable, Concord	2,294,256	48,611 29	4,354 75	3,400 11	.....
Farmington, Farmington	251,748	15,652 70	485 63	.....	.....
Farmers', Epping	90,818	4,465 76	291 08	.....	.....
Lake, Alton	130,978	10,683 10	1,083 49	144 00	.....
Manchester, Manchester	100,242	940 57	1,201 75	450 00	.....
Hand-in-Hand, Laconia	127,500	2,029 60	2,029 60	.....	.....
Union, Concord	1,729,656	93,592 88	922 01	2,664 28	5,576 81
Great Falls, Somersworth	1,343,605	81,430 17	1,312 37	2,692 28	.....
Portsmouth, Portsmouth	893,689	76,816 96	637 87	4,697 96	6,907 39
Farmers', Gilmanton	12,028,696	609,022 33	3,703 71	11,199 84	42,156 54
Hillsboro', Amherst	619,797	46,013 00	1,687 43	3,407 67	4,544 76
Rochester, Rochester	209,500	12,003 49	348 66	.....	.....
Amoskeag, Manchester	106,294	1,467 10	733 55	1,400 00	.....
New Hampshire, Concord	.....	.....	.....	.....	.....
Merrimack, Concord	.....	7,221 10	18 60	30 00	.....
Carroll County, Sandwich	.....	.....	.....	.....	3,670 28
Granite, Boscawen	1,100,461	63,238 51	297 61	2,731 28	.....
Nashua, Nashua	192,346	2,557 11	2,407 68	1,523 22	.....
Cheshire, Keene	4,267,407	139,796 12	5,046 33	7,009 45	6,500 00
Ashuelot, Keene	1,371,658	46,235 22	2,487 78	1,814 96	.....
Farmers', Exeter	3,245,431	169,766 13	861 38	1,270 45	10,726 59

COMMERCIAL REGULATIONS.

RATES OF PILOTAGE IN AND OUT OF THE MISSISSIPPI PASSES.

Vessels drawing 10 feet or less, at..... $2 50 per foot
Vessels drawing over 10 feet and under 18..... 3 50 "
Vessels drawing 18 feet and upwards..... 4 50 "

Draft.	Per foot.	Amount.	Draft.	Per foot.	Amount.
4 feet.....	$2 50	$10 00	13½.....	$3 50	$47 25
4½.....	"	11 25	13¾.....	"	48 12
4¾.....	"	11 87	14	"	49 00
5	"	12 50	14¼.....	"	50 75
5¼.....	"	12 75	14¾.....	"	51 62
5¾.....	"	13 75	15	"	52 50
6	"	15 00	15¼.....	"	54 25
6¼.....	"	16 25	15¾.....	"	55 12
6¾.....	"	16 87	16	"	56 00
7	"	17 50	16¼.....	"	57 75
7¼.....	"	18 75	16¾.....	"	58 62
7¾.....	"	19 37	17	"	59 50
8	"	20 00	17¼..... ...	"	61 25
8¼.....	"	21 25	17¾.....	"	62 12
8¾.....	"	21 87	18	$4 50	81 00
9	"	22 50	18¼.....	"	83 25
9¼.....	"	23 75	18¾.....	"	84 37
9¾.....	"	24 87	19	"	85 50
10	"	25 00	19¼.....	"	87 75
10¼.....	$3 50	36 75	19¾.....	"	88 87
10¾.....	"	37 62	20	"	90 00
11	"	38 50	20¼.....	"	92 25
11¼.....	"	40 25	20¾.....	"	93 37
11¾.....	"	41 12	21	"	94 50
12	"	42 00	21¼.....	"	96 75
12¼.....	"	43 75	21¾.....	"	97 87
12¾.....	"	44 62	22	"	99 00
13	"	45 50			

CERTIFICATE OF ORIGIN.

LA ROCHELLE, (France,) 1859.

* * * * I would beg leave to call the attention of the department to a want of reciprocity as regards the ships of France and those of the United States, the latter being required to produce at the custom-houses here a consular certificate as to the origin of cargo, while the former, it would appear, can manage to evade its production at our custom-houses; for, with two exceptions, no French masters have ever procured at this consulate such certificate, although I have in every instance notified them in writing as to its necessity. I have written to the collectors of the ports to which the vessels were bound on the subject, and have also very respectfully brought the matter to the knowledge of the Secretary of the Treasury.

In my despatch to that officer on the 1st inst., I have again mentioned the circumstance, and as several French vessels are at this time chartered for the United States, I have requested him to give me instructions as to the necessity or otherwise of continuing to give the written notice. I urge the matter solely at the instance of American shipmasters, who justly think that unless it is reciprocal they should be relieved from the heavy charges of the French consulates.

SIAM DUTIES.

Pursuant to the treaty entered into between the American Minister, TOWNSEND HARRIS, and the Siamese authorities, the following is the tariff of export and inland duties to be levied on articles of trade:—

SECTION I.

The undermentioned articles shall be entirely free from inland or other taxes on production or transit, and shall pay export duty as follows:—

	Tical.	Salung.	Fuang.	Hun.	
1. Ivory	10	0	0	0	per pecul
2. Gamboge	6	0	0	0	do.
3. Rhinoceros' horns	50	0	0	0	do.
4. Cardamums, best	14	0	0	0	do.
5. Cardamums, bastard	6	0	0	0	do.
6. Dried mussels	1	0	0	0	do.
7. Pelicans' quills	2	2	0	0	do.
8 Betel nut, dried	1	0	0	0	do.
9. Krachi wood	0	2	0	0	do.
10. Sharks' fins, white	6	0	0	0	do.
11. Sharks' fins, black	3	0	0	0	do.
12. Lukkrabau seed	0	2	0	0	do.
13. Peacocks' tails	10	0	0	0	per 100 tails.
14. Buffalo and cow bones	0	0	0	3	per pecul
15. Rhinoceros' hides	0	2	0	0	do.
16. Hide cuttings	0	1	0	0	do.
17. Turtle shells	1	0	0	0	do.
18. Soft shells	1	0	0	0	do.
19. Becher de mer	3	0	0	0	do.
20. Fish maws	3	0	0	0	do.
21. Birds' nests, uncleaned	20 per cent				
22. Kingfishers' feathers	6	0	0	0	per 100
23. Cutch	0	2	0	0	per pecul
24. Beyche seed, (nux vomica)	0	2	0	0	do,
25. Pungtarai seed	0	2	0	0	do.
26. Gum Benjamin	4	0	0	0	do.
27. Augral bark	0	2	0	0	do.
28. Agilla wood	2	0	0	0	do.
29. Ray skins	3	0	0	0	do.
30. Old deers' horns	0	1	0	0	do.
31. Soft or young horns	10 per cent				
32. Deer hides, fine	8	0	0	0	per 100 hides
33. Deer hides, common	3	0	0	0	do
34. Deer sinews	4	0	0	0	per pecul
35. Buffalo and cow hides	1	0	0	0	do.
36. Elephants' bones	1	0	0	0	do.
37. Tigers' bones	5	0	0	0	do.
38. Buffalo horns	0	1	0	0	do.
39. Elephants' hides	0	1	0	0	do.
40. Tigers' skins	0	1	0	0	per skin
41. Armadillo skins	4	0	0	0	per pecul
42. Stick lack	1	1	0	0	do.
43. Hemp	1	2	0	0	do.
44. Dried fish, flaheng	1	2	0	0	do.
45. Dried fish, plasalit	1	0	0	0	do.
46. Sapan wood	0	2	1	0	do.
47. Salt meat	2	0	0	0	do.
48. Mangrove bark	0	1	0	0	do.
49. Rosewood	0	2	0	0	do.
50. Ebony	1	1	0	0	do.
51. Rice	4	0	0	0	per royan

SECTION II.

The undermentioned articles, being subject to the inland or transit duties herein named, and which shall not be increased, shall be exempt from export duty :—

	Tical.	Salung.	Fuang.	Hun.	
52. Sugar, white.....	0	2	0	0	per pecul
53. Sugar, red.....	0	1	0	0	do.
54. Cotton, cleaned and uncleaned.	10 per cent				
55. Pepper	1	0	0	0	do.
56. Salt fish, platu.....	1	0	0	0	per 10,000 lbs.
57. Beans and peas..	.	.	.	.	One-twelfth.
58 Dried prawns.....	.	.	.	.	do.
59. Tilseed	.	.	.	.	do.
60. Silk, raw.....	.	.	.	.	do.
61. Beeswax.....	.	.	.	.	One-fifteenth.
62. Tallow.....	1	0	0	0	per pecul
63. Salt.....	6	0	0	0	per royan
64. Tobacco.....	1	2	0	0	per 1,000 bun.

SECTION III.

All goods or produce enumerated in this tariff shall be free of export duty, and shall only be subject to one inland tax or transit duty, not exceeding the rate now paid.

[L. S.] [L. S.] [L. S.] [L. S.] TOWNSEND HARRIS. [L. S.]*

And whereas, the said treaty has been duly ratified on both parts, and the respective ratifications of the same were exchanged at Bangkok, on the 15th day of June, 1857, by CHARLES WILLIAM BRADLEY, Consul of the United States at Ningpo, in China, and the royal Siamese Commissioners, on the part of their respective governments.

PLAQUES.

TREASURY DEPARTMENT, July 27, 1860.

SIR:—I have examined your report under date of the 4th ultimo, and other papers and samples submitted to me, on the appeal of J. B. BEHRMANN from your decision assessing a duty of 24 per cent on certain articles described as "plaques," composed of a metallic base or plate, on which is laid a composition of porcelain and tinsel or foil, and used in the manufacture of ornaments for the person. The Department is of the opinion that the articles cannot be classified, as claimed by the importer, as "imitation of cameos and mosaics, not set," nor as subject to the duty of 24 per cent assessed on the entry under the final clause of the 20th section of the tariff of 1842, but that they should be treated as unenumerated, and liable to a duty of 15 per cent under the 1st section of the tariff act of 1857. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, &c., New York.

CAUSTIC SODA.

It having been decided in several suits in circuit courts of the United States that "caustic soda" is entitled, under the law, to be admitted to entry at the same duty as "soda ash," and the Department having acquiesced in those decisions, collectors are hereby instructed that the duty to be assessed on "caustic soda" will be at the rate of 4 per cent, as a non-enumerated article, assimilated by operation of the 20th section of the tariff act of 1842, to "soda ash," specified in schedule H of the tariff of 1857.

* Signatures of Siamese plenipotentiaries.

COPY BOOKS WITH PRINTED HEADINGS.

TREASURY DEPARTMENT, July 27, 1860.

SIR:—I acknowledge the receipt of your report on the appeal of JOHN GILKISON, Esq., from your decision on certain "copy books with printed headings" imported by him. The books in question were, it appears, decided by you on the entry to be liable to a duty of 24 per cent under the classification in schedule C of the tariff of 1857, of "manufactures of paper, or of which paper is a component material, not otherwise provided for." The appellant claims entry at the rate of 15 per cent under the classification in schedule E, of "blank books, bound or unbound." The Department is of opinion that they cannot properly fall within either of these classifications, nor under that of "printed books," &c., in schedule G, but should be treated as unenumerated, and subject to a duty of 15 per cent under the 1st section of the tariff act of 1857. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, &c., New York.

HUMAN HAIR.

TREASURY DEPARTMENT, July 27, 1860.

SIR:—I acknowledge the receipt of your report of the 9th ultimo on the appeal of T. MOREAU, Esq., from your decision assessing a duty at the rate of 24 per cent under the classification in schedule C of the tariff of 1857, of "human hair, cleansed or prepared for use," on a certain lot of hair imported from Havre, per the "Nuremburg," styled by the importers, "cheveux bruts." The appellant contends that it should be subject to a duty of 8 per cent under the classification in schedule G of "hair of all kinds, uncleaned and unmanufactured." The classification depends on a question of fact. Assuming the description of the article by the appraiser to be correct, and that it is, in fact, human hair, cleansed, dyed, and fully prepared and ready for braiding, curling, and other uses by the hair worker, the Department is of the opinion that it falls within the classification in schedule C, to which you have referred it. The duty of 24 per cent was properly exacted by you, and your decision is affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

F. H. HATCH, Esq., Collector, &c., New Orleans, La.

CUBAN MANIFESTS OF CARGOES.

Information has been received at the Department of State from JOHN C. HELM, Esq., the United States Consul-General at Havana, that the form of a manifest as hereto annexed, which is in conformity with the Spanish law, has been transmitted to him by the Captain-General of Cuba. It is stated by Mr. HELM that "if this form be followed by shipmasters trading with the island, a vast amount of trouble will be avoided, as well as the fines which will invariably be imposed by the Custom house authorities at Havana and other Cuban ports for a variance from this form."

Report and manifest of the cargo laden at the port of ———, on board of the ——— Captain ——— burden ——— tons, for ——— consigned to ———, ——— 18—.

No. Bills of Lading.	Marks.	No.	Shippers.	Consignees.	Merchandise.	Contents, Quantities, and Weights.	Value.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

GERMAN RAILWAYS.

The whole length of railways in Germany in 1857, was 6,708 miles, besides 2,060 authorized but not opened. The capital raised by shares and loans was, up to the end of 1857, in Prussia—

Government railways:...	£9,727,133	Shareholders railways....	8,903,559
Shareholders railway*...	9 495,855	And in Austria—	
Shareholders railways....	24,859,110	All railways.....	29,258,650
And in other German countries—			
Government railways....	30,608,990	Total amount..... ...	£112,752,297

Of the new lines, 95 miles were opened in 1858. The revenue from the 6,708 miles in 1857 was £12,875,913, or about 11.5 per cent on the capital.

The average cost of (capital raised for) German railways on the 31st December, 1857, was £16,980 per mile opened, which is a little less than half that of British railways, the ratio being as 48 to 100.

In 1857, the Prussian railways carried 18,414,094 passengers, and killed only one passenger, and injured but one. What did the British do in the same time? According to Captain GALTON's report (Board of Trade) they killed 25 passengers from causes beyond their own control, and wounded not less than 63 passengers. The British roads carried 139,008,887 passengers in that year, (1857,) and kiled 1 to 5,560,355; the Prussian being 1 to 18,414,094. The greater safety of the German railways may, we think, be traced to their moderate speed and careful working.

The percentage of working expenses to receipts on German railways has greatly fallen in the course of years, but owing to the increase of the traffic the cost per mile per annum has enlarged. The great fall in the percentage of expenses has of course benefited the owners of the German railways. The following table exhibits these interesting facts clearly :—

	Miles open.	Working expenses per mile.	Per cent of exp'se to rec'ts.		Miles open.	Working expenses per mile.	Per cent of exp'se to rec'ts.
1834....	79	...	....	1846....	2,100	535	52.7
1835....	80	281	75.0	1847....	2,893	555	53.9
1836....	115	261	62.5	1848....	3,519	525	58.3
1837....	131	251	65.5	1849....	3,944	510	53.8
1838....	188	288	68 9	1850....	4,387	525	51.1
1839....	295	421	73.3	1851....	4,620	546	48.4
1840....	392	416	57.5	1852....	4,839	794	52.2
1841....	560	530	59.2	1853....	5,101	750	52.4
1842....	793	480	57.6	1854....	5,823	811	55.5
1843....	980	471	51.8	1855....	5,754	869	48.0
1844....	1,214	475	50.8	1856....	6,529	855	48.9
1845....	1,587	475	52.9	1857...	6,708	931	48.5

the latter column being expressed in pounds sterling.

The percentage of profits on capital of the German railways in 1857 appears to have been 7.05 per cent. In Great Britain, according to Captain GALTON,

* Managed by government.

in 1857 it was only 4.06 per cent, and less than 4 per cent dividend. We are not quite clear whether the German 7.05 per cent is profit or dividend. If it be profit on the whole capital the dividend would no doubt be much larger than 7 per cent since the preferred part of the German railway capital (£22,800,000 up to 1858) pays about 4½ per cent interest, which would raise the dividend, the profits on the total capital being in excess of 4½ per cent. In Great Britain the case is at present different, for although the rate of interest on preferred railway capital (including loans) is about 4¾ per cent on the average—not quite 4½—namely, 4.67 on the average, yet the profits on the whole capital being less than the rate of interest on the preferred capital, the dividend is crushed below the percentage of profits.

On an average the capital invested in German railways realized, in—

	Per cent.		Per cent.		Per cent.
1834.....	....	1842.....	3.88	1850.....	3.67
1835.....	2 26	1843	4.71	1851.....	4.45
1836.....	3.64	1844.....	4.17	1852.....	4 87
1837.....	2.69	1845.....	3.64	1853.....	4.74
1838.....	1 95	1846.....	3.60	1854.....	4.25
1839.....	2 27	1847.....	3.89	1855.....	5.11
1840.....	3.60	1848.....	2.67	1856.....	6.07
1841.....	3.65	1849.....	3.12	1857.....	7.05

Time was, therefore, when even the German railways, now paying upwards of 7 per cent per annum, paid under 2½. The steady progress of the railway dividends, even in so comparatively poor a country as Germany, must afford hope for the future.

RAILROADS OF THE STATE OF NEW YORK.

The three leading railroads of the State—New York Central, New York and Erie, and the Hudson River—cost together eighty-eight millions of dollars. When we add the Harlem Road, the grand aggregate amounts to about one hundred millions of dollars. The total freights on these four roads for the fiscal year ending 1st September, 1859, were over thirteen-and-a-half millions of dollars, and the aggregate receipts somewhat over twenty millions, on all the roads of the State of New York.

At the same time the foreign commerce of the State and City has advanced rapidly. The total value of property carried on the State Canals has increased from sixty-seven millions in 1836, to upwards of two hundred millions of dollars per annum.

The New York Central Railroad has carried in five years past, 3.884,702 tons; New York and Erie Railroad, 4,449,365 tons; and the Canals, 18,929,636 tons; a total exceeding 27,000,000 tons of merchandise, agricultural products, etc.; the tolls and freight on this property exceeding $49,000,000, for the five years.

New York City is the recipient of nearly all this vast property. Her merchants and capitalists, ship owners and boat-owners, traders and laborers, derive incomes from the freight and commissions on property received.

These facts point to the growing importance of railroads. They are essential to the development of the State's resources. If every dollar of the capital in-

vested in their construction were sunk, the State at large would, nevertheless, derive permanent benefits.

CAPITAL, FUNDED DEBT, FLOATING DEBT, COST, AND RECEIPTS OF EACH FOR YEAR ENDING SEPTEMBER 1ST, 1859.

Name of road.	Capital.	Funded debt.	Floating debt.
New York Central Railroad	$24,000,000	$14,333,771	.....
New York and Erie "	11,000,000	25,260,000	$353,703
Hudsen River "	3,758,466	8,842,000	414,654
New York and Harlem	5,717,100	5,353,297	.....
Total, four roads	$44,475,566	$53,789,068	$768,357
Albany and West Stockbridge	$1,000,000	$1,392,984	.....
Black River and Utica	815,711	700,000	$8,158
Blossburg and Corning	250,000	220,000	.....
Buffalo, New York, and Erie	680,000	2,410,721	252,142
" and State Line	1,984,950	1,049,000	161,263
Cayuga and Susquehanna	687,000	411,000	.....
Chemung	380,000	.....	.....
Elmira, Jefferson, and Canandaigua	500,000	.....	.....
Genesee Valley	75,689	165,000	42,500
Hudson and Boston	175,000	.....	.....
Long Island	1,852,715	636,907	17,589
New York and Flushing	120,000	125,000	.....
" and New Haven	2,980,839	2,163,500	21,121
Niagara Bridge and Canandaigua	1,000,000	.....	.....
Northern	.....	1,494,900	.....
Oswego and Syracuse	396,340	213,500	10,875
Potsdam and Watertown	665,419	911,000	192,748
Rensselaer and Saratoga	610,000	140,000	.....
Rochester and Genesee Valley	557,560	150,000	23,496
Saratoga and Schenectady	300,000	85,000	.....
" and Whitehall	500,000	395,000	.....
Syracuse, Binghamton, and New York	200,130	1,643,126	146,079
Troy and Bennington	75,350	172,100	150
" and Boston	604,911	806,500	247,676
" and Greenbush	275,000	.....	.....
" Union	30,000	680,000	.....
Watertown and Rome	1,498,500	685,000	65,682
Albany and Susquehanna	404,950	.....	33,134
Atlantic and Great Western of N. Y.	1,020	.....	.....
Erie and New York City	352,741	14,000	42,716
Lake Ontario, Auburn, and New York	77,855	.....	.....
Sodus Point and Southern	31,585	.....	1,850
Staten Island	50,603	.....	22,686
Buffalo and Alleghany Valley	16,000	.....	.....
Buffalo, Bradford, and Pittsburg	250,000	8,525	53,109
Total	$64,825,434	$70,461,921	$2,097,281
Broadway (Brooklyn)	199,000	14,000	556
Brooklyn City	1,000,000	.....	.....
Eighth Avenue	800,000	.....	.....
Ninth "	795,360	.....	.....
Second "	650,000	350,000	18,000
Sixth "	750,000	.....	.....
Third "	1,170,000	110,600	25,000
Total city railroads	$5,364,360	$474,600	$43,556
All other railroads	64,825,434	70,461,921	2,097,281
Total State of New York	$70,189,794	$70,936,521	$2,140,837

Name of road.	Total debt.	Cost of road.	Recp'ts, 1859'
New York Central Railroad	$14,333,771	$30,840,713	$6,200,848
New York and Erie "	25,613,713	35,320,907	4,482,149
Hudson River "	9,256,654	11,388,279	1,842,636
New York and Harlem	5,353,297	8,019,671	1,076,322
Total, four roads	$54,557,425	$85,569,570	$13,601,955
Albany and West Stockbridge	1,392,984	2,392,984	.....
Black River and Utica	708,158	1,237,553	62,941
Blossburg and Corning	220,000	496,661	26,858
Buffalo, New York, and Erie	2,662,863	3,150,762	541,249
" and State Line	1,210,263	2,779,994	848,327
Cayuga and Susquehanna	411,000	.....	59,205
Chemung	.....	400,000	.....
Elmira, Jefferson, and Canandaigua	.....	.....	.....
Genesee Valley	207,500	329,224	5,826
Hudson and Boston	.....	175,000	63,803
Long Island	654,536	2,566,270	334,195
New York and Flushing	125,000	.....	21,825
" and New Haven	2,184,621	5,330,486	992,404
Niagara Bridge and Canandaigua	.....	.....	.....
Northern	1,494,900	4,799,287	382,932
Oswego and Syracuse	224,375	775,677	109,152
Pottedam and Watertown	1,103,748	1,594,955	100,047
Rensselaer and Saratoga	140,000	901,025	235,902
Rochester and Genesee Valley	178,496	653,927	44,220
Saratoga and Schenectady	85,000	480,684	.....
" and Whitehall	395,000	903,890	154,099
Syracuse, Binghamton, and New York	1,789,205	2,851,292	196,401
Troy and Bennington	172,250	253,918	.....
" and Boston	1,054,176	1,510,513	218,689
" and Greenbush	.....	294,731	.....
" Union	680,000	732,114	.....
Watertown and Rome	750,682	2,150,502	362,993
Albany and Susquehanna	33,134	406,952	.....
Atlantic and Great Western of N. Y.	.....	.....	.....
Erie and New York City	42,716	287,707	.....
Lake Ontario, Auburn, and New York	.....	74,672	.....
Sodus Point and Southern	1,850	35,298	.....
Staten Island	22,686	114,014	.....
Buffalo and Alleghany Valley	.....	21,300	.....
Buffalo, Bradford, and Pittsburg	61,634	328,851	.....
Total	$72,559,202	$123,608,813	$18,263,034
Broadway (Brooklyn)	14,556	213,069	29,804
Brooklyn City	.....	1,054,107	471,442
Eighth Avenue	.....	769,550	379,499
Ninth "	.....	352,694	8,522
Second "	368,000	993,366	262,166
Sixth "	.....	877,336	323,956
Third "	135,600	1,564,098	502,951
Total city railroads	$518,156	$5,824,220	$1,978,340
All other railroads	72,559,202	123,608,813	18,263,034
Total State of New York	$73,077,358	$129,433,033	$20,241,374

RAILWAY STATISTICS.

In 1857, says an English journal, the linear extent of English railways exceeded the ten chief rivers of Europe united; and more than enough of single rails were laid to make a belt of iron round the earth. The tunnels, joined

together, would stretch more than seventy miles; the viaducts in the vicinity of the metropolis alone would reach 11 miles; and the earthworks measured 550,000,000 of cubic yards—a mass of material, which, if piled in a pyramid, would rise 2½ miles high, with a base larger than St. James's Park; 80,000,000 of train miles were run annually. The total number of stations amounted to 3,121; 5,000 engines, with 150,000 vehicles, composed the working stock; and 109,660 officers and servants were employed. The engines, in a straight line, would extend from London to Chatham, and the vehicles from London to Aberdeen; 2,000,000 of tons of coals were annually consumed; and in every minute of time, 20 tons of water were flashed into steam by 4 tons of coal. The coal consumed is almost equal to the whole amount exported to foreign countries, and to one-half of the annual consumption of London. Such was the wear and tear, that 20,000 tons of iron were required to be replaced per year; 2,000,000 of sleepers out of 26,000,000 laid down annually perished; and 300,000 trees, equal to 5,000 acres of forest, must be annually felled to make up the loss. In 1853, 111,000,000 of passengers were conveyed, each passenger traveling an average of 12 miles. A curious calculation has been made. Twelve miles by railway are accomplished in half an hour, whereas the old stage coach required an hour and a half to get through the distance. The aggregate time thus saved for the above number of passengers is equal to *thirty-eight thousand years*. But in 1857, the number of passengers amounted to 139,008,888, and the receipts from all sources were £24,174,616.

RAILROAD RECEIPTS FOR JULY.

	1860.	1859.		
Baltimore and Ohio Railroad.....	$321,895	$261,589	increase	$60,306
Washington branch.....	44,520	31,784	"	12,736
Northwest Virginia branch.....	16,622	10,787	"	5,835
Total.....	383,037	304,261	"	78,076
Buffalo, New York and Erie.....	45,526	39,828	"	5,698
Chicago, Burlington, and Quincy....	154,723	100,883	"	53,840
Chicago and Northwest.....	39,840	24,274	"	15,566
Chicago and Rock Island.....	80,609	65,831	"	14,778
Cleveland and Toledo.....	50,639	45,963	"	4,676
Galena and Chicago.....	78,842	88,527	decrease	9,685
Hudson River.....	140,865	125,304	increase	15,561
Illinois Central.....	196,000	138,900	"	57,100
Indianapolis and Cincinnati.....	29,605	25,213	"	4,392
Michigan Central.....	128,383	108,304	"	20,079
Milwaukee and Mississippi.....	37,827	45,834	decrease	8,007
New York Central.....	549,174	504,517	increase	44,956
New York and Harlem.....	100,039	91,189	"	8,850
Pittsburg, Fort Wayne, and Chicago	163,997	134,941	"	29,056
St. Louis, Alton, and Chicago.....	83,119	58,801	"	24,318
Toledo and Wabash.....	84,879	59,141	"	25,738

A METHOD OF TESTING THE STRENGTH OF STEAM BOILERS.

The following is from a paper contributed to Newton's *London Journal*, by Dr. JULE:—The author adverted to the means hitherto adopted for testing boilers. 1st. That by steam pressure, which gives no certain indication whether strain has not taken place under its influence, so that a boiler so tested may subsequently explode when worked at the same or even a somewhat less degree of

pressure. He trusted that this highly reprehensible practice had been wholly abandoned. 2d. That by hydraulic pressure obtained by a force-pump, which does not afford an absolutely reliable proof that the boiler has passed the ordeal without injury, and moreover requires a special apparatus. The plan which had been adopted by the author for two years past, with perfect success, was free from the objections which applied to the above, and is as follows:—The boiler is entirely filled with water; then a brisk fire is made in or under it. When the water has thereby been warmed a little, say to 70° or 90° Fahrenheit, the safety valve is loaded to the pressure up to which the boiler is to be tested. Bourdon's or other pressure indicator is then constantly observed, and if the pressure occasioned by the expansion of the water increases continuously up to the testing pressure, without sudden stoppage or diminution, it may be safely inferred that the boiler has stood it without strain or incipient rupture. In the trials made by the author, the pressure rose from zero to 62 lbs. on the square inch in five minutes. The facility of proving a boiler by this method was so great, that he trusted that owners would be induced to make those periodical tests, without which, fatal experience has shown, no boiler should be trusted.

PERFORMANCE OF LOCOMOTIVES.

	Great Western, Illinois.	Illinois Central.	N. Y. Central. Albany & Sch. Div.	N. Y. Central. Middle Division.	M. S. & N. I. E and N. Division.	M. S. & N. I. Western Division.
Wages	$0.0441	$0.0401	$0 0472	$0.0473	.....	.....
Fuel	.....	0.0752	0.1038	0.1090	0.0514	0.0437
Stores	0.0054	0.0077	0.0074	0.0071	0.0071	0.0063
Cleaning	0.0054	0.0062	.....	.....	.....	.....
Repairs	0.0503	0.0503	0.0447	0.0334	0.0569	0.0759
Total	0.1557	0.1795	0.2080	0.1968	.....	.....
Wood per cord	.....	.....	3 84	.....	2.75	.....
Coal per ton	.....	.....	5.00	.....	.....	.....
Engines reported	.....	.....	34	45	37	25
Miles run	32,420	200,506	60,474	89,540	76,567	43,141
Per pint oil	22.70	15.46	20.80	22.45	19.10	24.31
Per cord wood	41.63	46.34	37	35.24	53.42	62.85
Per ton coal	39.86	33.74	.....	.....	.....	.....
Cars per train	10.58	10.52	15.32	11 98	.....	.....
Length main track	.....	708.25	17	184.79	.....	.....

LOUISVILLE CANAL.

Congress has authorized an addition to the Louisville and Portland Canal, by the following resolution:—

A RESOLUTION AUTHORIZING THE ENLARGEMENT OF, AND CONSTRUCTION OF A BRANCH TO, THE LOUISVILLE AND PORTLAND CANAL.

Resolved, by the Senate and House of Representatives of the United States of America in Congress assembled, That the president and directors of the Louisville and Portland Canal Company be, and they are hereby authorized, with the revenues and credits of the company, to enlarge the said canal, and to construct a branch canal from a suitable point on the south side of the present canal, to a point in the Ohio River, opposite Sand Island, sufficient to pass the largest class of steam vessels navigating the Ohio River: *Provided,* That nothing herein contained shall authorize the said president and directors, directly or indirectly, to use or pledge the faith or credit of the United States for the said enlargement or construction. It hereby being expressly declared, that the Government of the

United States shall not be in any manner liable for said enlargement and construction. *Provided, further*, That when said canal is enlarged and its branch canal constructed, and its cost of said improvement paid for, no more tolls shall be collected than an amount sufficient to keep the canal in repair, and pay for all necessary superintendence and management.

Approved 24th May, 1860.

NEW YORK CITY RAILROADS.

The business of the New York City roads for the year ending Sept. 30, 1859, were, according to the State Engineer's report, as follows :—

	No. passengers carried.		Receipts.	
	1858.	1859.	1858.	1859.
Third Avenue	7,945,462	9,974,101	$403,055	$502,951
Eighth "	6,768,203	7,589,997	388,410	379,500
Sixth "	5,612,357	6,479,129	280,617	323,956
Second "	4,504,645	5,182,011	227,457	262,166
Harlem	3,069,721	3,493,113	153,486	261,983
Total	27,900,388	32,718,351		

	Expenses.		Net Earnings.	
	1858.	1859.	1858.	1859.
Third Avenue	$242,811	$307,188	$160,244	$195,763
Eighth "	177,753	252,872	160,657	126,621
Sixth "	178,226	216,685	103,391	107,271
Second "	119,704	180,644	107,753	81,522
Harlem	82,882	130,180	70,604	131,803

The increase of passengers on the Third Avenue is the largest, being over 20 per cent; that of the Eighth is 11 per cent; Sixth, 16 per cent; Second, 15 per cent; and Harlem, 14 per cent. The average is 15¼ per cent. At this rate of increase there will be, in a year or two, required double the quantity of street railway accommodation to do the passenger business between the two ends of the island.

RAILWAYS OF CONNECTICUT.

GENERAL STATEMENT OF THE LENGTH, COST, AND OPERATION FOR THE YEAR 1859, OF THE RAILWAYS OF CONNECTICUT.

Name of railway.	L'gth in Conn.	Cost.	Total debt.	Revenue.	Net income.
New York and New Haven	47	$5,330,486	2,184,621	$992,404	$359,183
Hartford and New Haven	65	3,320,702	964,000	723,460	381,267
Norwich and Worcester	50	2,613,694	729,077	351,689	139,565
Providence, Hartford, and Fishkill	96	*4,205,966	2,161,691*	349,505	157,168
New London, Willimantic, & Palmer	57	1,573,568	1,052,000	120,554	†
Housatonic Railway	74	2,430,775	828,730	289,860	35,280
Naugatuck Railway	57	1,578,301	816,391	241,330	104,772
Danbury and Norfolk	24	386,715	89,600	73,825	27,991
New Haven and Northampton	55	1,400,000	500,000	141,641	‡74,938
N. Haven, N. London, & Stonington	62	1,454,040	879,842	107,837	15,649
New York, Providence, and Boston	6	2,158,000	806,500	276,434	114,563
Totals and averages	594	27,461,247	9,512,452	3,668,545	1,410,116

The eight miles of the Boston and New York Central Railway in Connecticut are not included in the above length.

* According to the report of the preceding year.

† The New London, Willimantic, and Palmer Railway went into the hands of the trustees of the first mortgage bond holders in January, 1859.

‡ The revenue given is $141,641, the expenses $66,703; but the net, $52,813; how such a difference is made we do not see: the arithmetical difference being $74,938.

JOURNAL OF MINING, MANUFACTURES, AND ART.

TIN—ITS USES AND COMMERCE.

There are thousands of persons who have no further knowledge of tin than that of beholding it in the form of common pails and pans. Well, to use an expressive Irishism, "such tin is no tin at all." It is simply thin plates of iron coated with tin metal, the proper name of which ought to be *tinned sheet-iron*. Tin is one of our most useful metals, because it is employed for a great number of purposes. We propose to give some information respecting it, which will be new to most of our people, and interesting, we think, to all.

Tin is one of the most ancient metals—that is, it was well known to the ancients; and it is very well established as a fact that the Phœnicians, those olden masters of the sea when Tyre was in her glory, made voyages to Cornwall, and obtained tin from the mines in that district, long before Britannia was known to the Romans. It was this tin, alloyed with copper, which formed the old bronze armor of the Asiatic warriors; and it may have been furnished also by the renowned Hiram, King of Tyre, the great architect and friend of Solomon, for the building of the first and unapproached Jewish temple. In appearance, this metal resembles silver when first polished; but it sooner becomes dim, because a thin coat of oxyd forms early on its surface when exposed to a moist atmosphere. It is quite ductile, and may be rolled out into very thin sheets, called *tin-foil*. When undergoing this rolling operation, it is kept at a temperature of about 212° Fah., at which heat its malleability is greatly increased. A common method of making tin-foil is to form ingots of lead and tin—the former in the heart of the ingot, the latter on the outside—and to roll these out into foil. By this process, the tin is retained on the outside, however thin the ingots may be rolled out, while the poisonous lead is kept inside; and by this means the cost of the material is not one-half what it otherwise would be if made entirely of pure tin. A patent has been secured for this invention, and by the reduction caused by it in the price of foil, the latter is now employed for a hundred purposes, such as wrappers for tobacco, labels on bottles, etc., for which paper and other substances were formerly used.

Tin is also extensively employed in the chemical arts, such as by calico-printers and dyers, for making what are called "spirit mordante" and "stannate salts." It is this metal which gives its brilliant hues to the rich crimson shawl and the azure-blue robe of the fashionable lady; and it forms the basis of many other colors on silk, cotton, and woolen fabrics. For this purpose, the metal is commonly dissolved in an acid, such as hydro-chloric or nitro-muriatic, which, in a diluted state, forms the chemists' "spirits." Instead of dissolving it as an acid for such purpose, as was exclusively done in former years, it is now combined with an alkali, and forms the stannate of soda, a salt resembling pearlash. In this form it is now extensively employed in Europe, and the writer of this has had some of it in his possession for more than a year, but has endeavored in vain to make some of our practical chemists appreciate its advantages. Tin

dissolves in some acids like white sugar in hot water; but the action which takes place in the former case is chemical—in the latter, merely mechanical.

The tinned-plates employed by our "whitesmiths" for making milk-pans, pails, and such like articles, are all imported from England, to which country their manufacture is confined. We also import great quantities of this metal in pigs, called "block-tin." It is principally used for making bronze alloys for machinery and "white metal," formerly called "Britannia metal," which is an alloy composed of tin, copper, and antimony. Very small portions of the latter two metals are used in the alloy—only a sufficient quantity to render the tin hard, and at the same time retain its ductile quality. A very great amount of this metallic alloy is employed in the manufacture of tea-table ware. It is first made into sheets; these are afterwards spun in lathes into the forms of tea, coffee, and milk-pots, cups, flagons, and urns, of tasteful designs; after which they are electro-plated with silver, and become beautiful in appearance. Twenty years ago all our pewter and Britannia ware was imported from England; now very little, if any, comes to us from abroad. We manufacture all we use at home. Skillful English artisans introduced the art among us, and there are very large manufactories for making this ware in Waterbury and Meriden, Conn., Taunton, Mass., and several other New England towns. Very great advances have been made of recent years in the designs or forms of articles formed of this ware. The old pewter tea-pots and their adjuncts were models of ugliness in comparison with the same class of articles now manufactured. The adoption of classic models has wonderfully improved the tastes of our people, and such has been the progress recently made in this art that elegant articles of such ware, with surfaces of dazzling pure silver, can now be purchased lower than the old pewter-pots thirty years ago.

ENGRAVING ON GLASS.

The *Scientific American* translates from *L'Invention* the following account (by Mr. GUGNON) of a new process of engraving on glass, for printing the patterns for embroidery, netting, crotchet, etc., by which it is said that the labor of a month in this kind of engraving can be performed in one day. The process consists in etching by means of hydrofluoric acid which, as our readers are aware, has the remarkable property of corroding glass:—

1. *Substances Employed.*—It is known that certain fatty and resinous substances are not soluble in hydrofluoric acid. Among these substances the author chooses the bitumen of Judea, to which he adds one-sixth part of gum mastic (mastic in tears;) he then reduces the whole to an impalpable powder.

2. *The Design.*—The design is cut in stencil, either in paper, parchment, or metallic plate, in a way to cover those portions of the glass which are to be attacked by the acid, and to leave exposed those parts which are not to be attacked.

3. *The Application of the Process.*—The glass is placed horizontally and varnished with a very thin coating of any fatty substance (the author prefers the essence of turpentine;) and the stencil plate is laid on the varnish while it is fresh. The asphaltum powder is then sifted through a very fine sieve over the surface of the stencil plate and the glass, and the plate is carefully removed, thus leaving the powder upon the glass in figures corresponding to the

open parts of the plate. The glass is next exposed to gentle heat which causes the essence of turpentine to combine with the asphaltum and the gum mastic, and the mixture, in melting, fixes itself to the glass.

4. *Treatment by Acid.*—The pattern is surrounded by a ridge of soft wax prepared for the purpose, and hydrofluoric acid, diluted with one-third its volume of water, is poured over it. In about 40 minutes the etching is completed.

MANUFACTURE OF ROOM OR WALL PAPER.

The manufacture of wall paper is carried on to a great extent in Philadelphia, and gives employment in some half-dozen establishments to 1,800 men and boys. The quality of the paper made there has a reputation which extends over the entire Union, and in many instances it is preferred for beauty and tasteful designs to that imported from France. Until within the last few years, all wall paper was made by hand; but now very pretty and cheap paper is produced by machinery in two of the Philadelphia factories. The mode of making paper by machinery and by hand is as follows:—The paper in the rough state, when taken to the manufactory for printing, is first coated with white clay, obtained from New Jersey. This clay is ground very fine and then made soluble. The paper is then passed over a revolving drum, the mixture being put on by a large brush, which revolves very rapidly. The paper, as it comes from the drum, passes into a heated box, which extends the entire length of the building, which completely dries it by the time it reaches that portion of the room. The factory of HOWELL & BROTHERS is 350 feet in length. If the paper is to be glazed, it is passed through rollers made of stiff bristles. This mode of preparing the paper is practiced in all establishments. It is then ready to receive the colors and figures which fancy may dictate. If the paper is to be printed with machinery, rollers having the figures, flowers, or any other design to be printed, fixed on them with small brass pins, the interstices being filled with felt, are placed in their proper places on the cylinder of the press, some eight feet in diameter. As many as ten different colors can be put upon the paper at one time, so accurate does the press work, and the registering apparatus being so perfect in all its details. There are two of these presses in the factory of HOWELL & BROTHERS, each one being capable of printing, 13,500 yards of wall paper per day. The paper passes up a plane and then under the press between that and the rollers which are to give it the various colors, after receiving which it passes through the heated boxes, and is then cut into pieces nine yards in length, ready for use. In other rooms the finer kinds of paper are made by hand. One is devoted to the making of velvet paper. Here the colors are put on with flat blocks, the workmen having a lever, moved by a treadle with the foot, to press the block so as to make the impression on the paper. It is then passed through a covered box, while the ink or color is yet wet, in which is a quantity of wool, ground very fine. A boy, by striking the bottom of the box with a stick, causes the paper to be covered with the wool, and when it is removed, the portions to represent velvet are nicely covered. In gilding paper, the same process, so far as printing is concerned, is followed. The gold is placed upon the damp portions of the paper by boys, and the particles which are brushed off are collected

together and ground up for the purpose of making a powder, to be used in the manufacture of bronze paper. In making wall paper by hand, as it is termed, a block is necessary for color and shade to be placed upon the paper, and as these blocks have to be cut by artists, our readers may have some idea of the cost necessary in producing paper which is purchased at so small a sum. The paper made to represent oak and marble is furnished by men who pursue only this branch of the business, the demand for it being so limited that it would not justify the regular manufacturers to go to the expense necessary for its production. There is no branch of this business but what is successfully carried on in Philadelphia; and so expert have the manufacturers become in the business, that a great deal of the paper sold to wholesale dealers in New York is resold by them as the production of Frenchmen.

RAGS.

England is discussing at the present time, the interesting topic of rags. This article would be of little account if we had no printing presses, but the enormous increase of printed matter render rags a material of first rate importance throughout the civilized world. The repeal of the excise duties on paper and of the tax on newspapers will increase the consumption of rags very much in England, and the English, fearing a great scarcity, begin to look around for the means of supplying the demand, and are complaining of the prohibitory export duty of France. It was expected that under the new treaty, French rags, the exportation of which has been absolutely prohibited, would be exported free, but a duty has been laid upon their exportation which amounts to prohibition. This has caused great excitement among the English paper manufacturers, and negotiations have been actively commenced with other ragged countries of Europe, Holland, Germany, Belgium, Spain, and Portugal, which prohibit the exportation of their worn-out garments.

There are now about seven hundred paper mills in England, and from seventy to eighty in Scotland, besides no inconsiderable number in Ireland. The annual value of the paper manufactured, exclusive of the tax, is from £1,600,000 to £1,700,000. The Scottish mills are much more extensive than the English, for while not more than one-tenth in number, they pay a sixth part of the paper revenue. Until a very recent period the tax on paper amounted to more than three times as much as the total wages paid to the workpeople employed.

The English writing papers are made of their own rags, but printed paper is made chiefly of rags imported from the tattered cities of the continent—Hamburg, Bremen, Bostock, Ancona, Leghorn, Messina, Palermo, and Trieste.

With the increased activity of the printing press under the free system adopted in England, they must increase their purchases, and as the supply was short previously, the British Government are extremely anxious to remove the obstructions to free trade in rags throughout Europe, and they naturally complain of the difficulties that beset them. The editor of *Bell's Life in London* ought to pitch into LOUIS NAPOLEON vigorously for the want of "fair play" he has shown in this contest for rags.

It is probable enough that the price of rags, and consequently of paper, will

be increased in this country when paper-making is materially increased in England under their new system, and our own government should bring their diplomacy to bear upon those countries who refuse to part with their rags, in order to induce free exportation if possible. We consume enormous quantities of printing paper in this country already, and the consumption is increasing, year by year, and it will become a question of great importance within a few years how we are to be supplied with rags. We manufacture the best paper machinery in the world, the original design having been stolen by a Yankee mechanic who worked in a paper mill in England several months, and obtained drafts of the machinery and the secret of heating the revolving cylinders by steam. The original machine was immensely improved by the Yankees when they began to make paper by machinery, and they soon began to export to England the improved machines, the rough model of which they had stolen from that country. The Yankees ought now to help the world out of this rag difficulty by inducing those countries which refuse to abandon their "old habits" to export rags without restrictions. They may exercise some diplomatic influence, without doubt, on the other side of the water, in concert with England.

COTTON SPINDLES.

The following is a table of the recent increase in the number of spindles in cotton factories at the East :—

INCREASE OF SPINDLES SINCE SEPTEMBER 1, 1859.

		Spindles.	No.	Pounds per day.
Fall River	Linen mill*	30,000	30	4,000
Sprague	Print cloth	10,000	32	1,250
Williamsville, R. I.	Fine shirting	5,000	35	536
Masonville, R. I.	" "	5,000	36	521
Slater, R. I.	Fine, coarse, fancy	2,000	14	857
Ashland	Light sheeting	5,000	21	1,190
Fall River	Print cloth	13,000	30	2,000
Fall River, Robeson	" "	6,000	30	800
Taunton, Dean & Co.	" "	9,000	28	1,336
T. J. Hill, R. I.	Fine sheeting	6,000	36	625
Edward Harris, R. I.	Fancy	20,000	18	6,111
Harmony, Cohoes	Print cloth	6,000	36	625
Ogden, Cohoes	" "	4,000	32	500
Warren st., R. I.	Fine sheetings	10,000	36	1,042
Indian Orchard	Sheetings	18,500	28	2,808
Hamilton M. Co.	Print cloth	12,000	33	1,454
Everett	Fancy	15,000	14	6,423
Pemberton	"	20,000	14	8,571
Pembroke	Print cloth	12,000	32	1,600
Blodget Paper	" "	15,000	30	2,000
Amoskeag	Fancy	8,000	16	2,750
Androscoggin	Sheetings	40,000	25	7,200
Total		273,500		54,284

Many other extensions are projected—among them by the Neamkeag Manufacturing Company, about 33,000 spindles—also Wamsutta, Blackstone, Pacific, etc., about 70,000 spindles more.

* Changed to print cloths, and now in operation.

SILVERING LEAD TUBING.

Many attempts have been hitherto made to silver the interior of lead and other tubing employed in mineral water apparatus and for other purposes, by the voltaic process, but it has hitherto been found impossible to effect a uniform deposition beyond a short distance from the ends of the tubing. The object of this invention is to obtain by such process a uniform deposition of the silver on every part of the interior of a piece of tubing of any length, and to this end the invention consists in the employment as the bath or decomposition cell of the tube itself; also in the use, for the purpose of conducting the galvanic current and for replenishing the supply of the coating metal, of a rod or wire passing through the tube in the direction of its length; also in the extension or stretching of the tube and central conductor by means of screw threads and nuts, or their equivalents attached to their ends, for the purpose of keeping them straight, and thereby providing for the more ready insertion of the central conductor within the tube, and for the prevention of metallic contact; also in the use of non-conducting supports between the interior of the tube and the exterior of the central conductor, for the purpose of preventing the conductor coming in contact with the tube, and preserving a uniform distance between them in all parts; also in providing for the movement of the central conductor and its non-conducting supports within the tube to permit the deposition of the metal on all parts of the interior of the lead pipe, which could not take place if the supports were stationary; and lastly in connecting the poles of the battery at opposite ends of the tube and central conductor to insure uniformity of deposit throughout the whole length of the tube.

GAS-LIGHT COMPANIES OF THE UNITED STATES.

The *American Gas-light Journal* has the following interesting returns:—

The annual tables of gas-light companies will be found in this issue, the most noteworthy features of which are the decrease in the price of gas in several of the cities, and a slight increase in the number of gas-works in operation, as follows:—

381 American companies	$47,911,215
23 Companies in British provinces	2,112,040
19 Cuban, Mexican, and South American companies	6,500,000
423 companies; aggregate capital	$56,523,255

There is no question that the lower the cost at which good gas—of say twelve candles or higher brilliancy—is furnished, the greater will be the consumption, and necessarily the greater the profits to the manufacturers. This is beginning to be understood by gas companies, and the sooner it is acted upon, the better we are sure it will be for themselves. The paucity of gas-works on this extended continent must strike every reader. Take New York for instance—the Empire State of the North American Confederation, with its area of 46,000 square miles, or 30,080,000 acres, of which 15,000,000 are improved; its extreme length nearly 480 miles, and its breadth 310 miles; with a population of at least 4,000,000, distributed in nearly 800,000 of families, occupying, perhaps, 600,000 dwellings, in 45 counties, with 71 gas-works to light them up. That is not much more than a gas-work to every county in the State.

New York is filled with populous and thriving cities, towns, and villages, every one of which—we need hardly except one, whose inhabitants number 500

persons—can support gas-works. Look at Pennsylvania, with an equal area of territory—46,000 square miles, or 29,440,000 acres, of which some 10,000,000 are improved, and about 4,000,000 of population. Pennsylvania has 63 counties and but 48 gas-works, and yet we believe the actual capital in gas-works owned in Pennsylvania is greater than in any other State, not excepting New York.

Massachusetts has 49 gas-works, with a territory to light up of 8,000 square miles, or 5,000,000 of acres, of which, perhaps, 2,500,000 are cultivated, and a population of about 2,000,000.

Illinois has 55,400 square miles of area and 13 gas-works. No State in the Union is more blessed with jaunty little towns and enterprising people. Everybody goes to Illinois to work, and it is time they set to work at striking a light.

Ohio measures, in area, 40,000 square miles, and numbers 87 counties. She has 30 gas-works, but then, Ohio is full of pigs, and it would be a reflection upon that useful branch of illuminating material to slight their well tried ability to keep the wick-ed portion of the community from utter darkness; we do not propose, therefore, to grumble at Ohio.

Great Britain, on the other hand, has 88,000 square miles and about 1,100 gas-works. Why is it that Great Britain, with not twice the area of territory contained in the single State of New York, should have fifteen gas-works to our one, and three times as many on her little island as there are in the whole United States combined? We have, surely, plenty of money and abundance of enterprise. The subject of extending the area of gas-dom in this country is beginning to attract the attention of moneyed men, and they may rely upon it that a more sure and profitable investment is not to be found here or elsewhere. A hundred thousand dollars invested in three or four village gas-works will yield revenue enough for any reasonable man during his sojourn here below, and be a neat little monument to leave to his affectionate heirs when his own light shall have been extinguished by the waves of relentless Time. We repeat that, in order to moderately light the various towns on this continent, there are not less than twenty thousand gas-works yet to be built, and, instead of concentrating the interest in mammoth corporations, they should be of moderate size and extent, economically built, honestly managed, and, by the reasonable price at which they furnish light, they should and inevitably will become the only means of meeting that universal want.

THIMBLE MANUFACTURING.

The process of manufacturing thimbles with the latest improvement, is as follows:—

Sheet iron, one twenty-fourth of an inch thick, is cut into strips of dimensions suited to the intended size of the thimbles. These strips are passed under a punch press, whereby they are cut into disks of about two inches diameter, tugged together by a tail. Each strip contains one dozen of these blanks, and these are made red hot, and laid upon a mandrel nicely fitted to their size. The workman now strikes the middle of each with a round faced punch, about the thickness of his finger, and thus sinks it into the concavity of the first mandrel. It is then transferred successively to another mandrel, which has five hollows of successively increasing depth, and, by striking it into them, it is brought to the proper shape. This rude thimble is then stuck into the chuck of a lathe, in order to polish it within; it is then turned outside, the circles marked for the gold ornament, and the pits indented with a kind of milling tool. They are next annealed, brightened, and gilded inside, with a very thin cone of gold leaf, which is firmly united to the surface of the iron by the strong pressure of a smooth steel mandrel. A gold fillet is applied to the outside, in an annular space turned to receive it, being fixed by pressure at the edges into a minute groove formed on the lathe.

COOLING OF METAL CAUSING IT TO HEAT ITSELF.

It is generally known that the cooling of one end of a piece of metal generally cools other parts of the same piece of metal, by the power which the metal has of conducting heat from the warmer to the cooler parts. But when some metallic substance, as steel, cools to some certain temperature, which is different for different substances, some change in the structure of the substance commences at some point or points, which change generates heat; and this change extends from the point or points of beginning, through other parts, and heats other parts of the substance. The temperature at which this spontaneous heating commences in steel, is that at which the steel appears only a little reddish on a cloudy day. This rise of temperature depends on the portions and state of the iron and carbon which compose the steel. Prof. HORSFORD says he used an iron rod, and did not perceive that one end of his rod was warmed by the cooling of another part. Common wrought iron does not contain enough carbon to produce much of this spontaneous heating. But the portion of carbon which exists in common good steel, is large enough to produce a rise of temperature sufficient to be perceived without any thermometer, by the following process. This is seen by using a bar of steel about one-eighth of an inch thick and one inch or more wide. Heat one end of such bar nearly white hot, without warming its other end much, as blacksmiths heat steel, by keeping it somewhat screened from the air while in the fire, to prevent much oxide from forming on it, next move it from the fire into a dark place. After some parts cool from light red to dark red, they will reheat to light red. Such spontaneous heating may be shown less perfectly by heating a knife blade in a common fire, and suddenly moving it into a dark place.

THE AMERICAN PUMP.

"Necessity" is said to be "the mother of inventions;" be this as it may, Americans are an inventive people, as is shown by the fact that nearly 29,000 patents have been issued by our government; of this vast number, only a small proportion have reached a handsome remunerative eminence. Among those of real merit and general utility, may be placed "*The American Pump*," owned by Mr. JAMES M. EDNEY, 147 Chambers-street. Though in its infancy, it has gained a wide and durable reputation, not only in America but abroad. The *Patrie*, a daily Paris paper, gives a very flattering notice of this pump, one of which had been tried by several scientific gentlemen near Paris; it says, "the unanimous opinion of the entire party was, that it was the most perfect pump ever invented, being unequaled in simplicity, economy, and durability." A leading London house has given an order for that market, and the proprietor has just sent one to a town in Turkey of 30,000 inhabitants, where a pump was never seen. Cuba, California, Central America, are ordering it for general use by hand and power. Every State in the Union has more or less of these pumps at work. *It is a double-acting force pump*, and the whole construction is such as to entitle it to pre-eminent merit, for while it is the simplest, it is the most powerful, either to raise, force, or throw water to any desired height or distance, and is adapted to almost every purpose, and economical in price.

STATISTICS OF AGRICULTURE, &c.

VINYARDS OF FRANCE.

The value of land in the valley of the Loire varies considerably throughout Touraine. At Pitiuviers, for instance, which lay on our left, the price per English acre is £35, and the produce £8 per acre; at Chambord, £25 per acre, and the produce £8 8s.; while at Amboise the produce usually reaches £5 12s. per acre, and the price of land £43. At Chambord, near Blois, we find about two thousand acres of vinery, and all under the eye at once upon a blowing sand. Quitting Orleans, the railway conducts us along the right bank of the Loire. The valley is broad through which we run, varied by moderate high hills, and the scenery to Tours is charmingly sunny.

The slopes to the Loire are covered with vinyards, and its waters being thrown into strong currents here and there by the presence of islands, has hollowed out the yellow cliffs that confine them. The best wines produced in the Orleanois are to be found near St. Ay. Leaving Blois, with its historic castle, impregnable, on one steep slope, and passing Amboise, the eye, wandering over a dead level, is attracted by what appears to be the towers of a vast cathedral, rising alone and solemnly. The imagination becomes active, and at last a city fills the space, which to our fancy had seemed the precincts of a solitary temple. It is Tours; and as we look about amongst its stately streets we are reminded of what we have read of this cradle of the French monarchy.

Proceeding to Poictiers, it is noticeable that the lands are cultivated by oxen in pairs, without either driver or reins. Poictiers is a picturesque town, abounding with antiquities. On we go, through vine-clad slopes and fertile country, yet well manured by many a gallant army massacred in the name of ambition or religion; run very near the thriving Angouleme, perched upon a hill top; cross the Dordogne, a large tidal river, at Liburne; intersect the tongue of land entitled "Entre Deux Mers," which is a fertile district, chiefly laid out in vinyards and corn-fields, and scattered over with country seats; and finally glide into Bordeaux along the right bank of the Garonne, the wooded and vine-clad heights of Floirac forming a striking picture.

Here we are, then, at the seat of what we term in England the "claret" wines, a particular manufacture, and which consists of adding to each hogshead of Bordeaux wine three or four gallons of Alicant, and a small quantity of Hermitage. Bordeaux, the second seaport of France, containing 124,000 inhabitants, is well situated for carrying on a trade, principally in wine and hemp, w ith North and South America, the French colonies, and Great Britain. From 50,000 to 60,000 tuns of wine are exported annually. Nearly half the best quality is sent to Great Britain, and very little of it is consumed in France. Amongst the "lions" of Bordeaux are the cellers of the banking wine merchants, the MM. Burton and Guestier. They are two stories in height, and commonly contain from 8,000 to 9,000 casks of wine.

The vinyards of the Cordelais extend between the 43d and 45th degrees of latitude, and consist of one million of acres, which produce an immense quantity of wine of all qualities. Be it remembered that the French people, in thus supplying their own beverages, are not using their best soils—their corn soils—as

we do in England, but soils that sometimes, owing to position, and always to quality, will not produce anything else. Such soils as support the vine in France are in England quietly given over to furze and rabbits.

The growths of the Bordelais may be divided into Medoc, Graves, Palus, and Vignes Blanches, which furnish wines of prime quality. To these may be added those of the Territories known as Entre-deux-mers, Bourgeais, and St. Emillion, the growths of which are of secondary order.

Medoc, in the department Gironde, which we find contains 350,000 acres of vinyard, cultivated by 80.000 proprietors, and yielding an annual produce of 56,000,000 gallons, is a long tongue of land, nowhere more than two miles broad, extending northwards between the Garonne on the east and Bay of Biscay on the west.

The vines of St. Estephe, and those of Lafitte, both on the same soil, produce wines to which very different values are attached in the market. The qualities of wine are too, very dependent upon seasons. The goodness of a season will sometimes raise a secondary to prime wine, or its unpropitiousness, on the other hand, may debase a premier quality to the rank of a third or fourth. When they are not reputable, so necessary is it to maintain the character of the various vinyards with the best customers, that exportation to England ceases, and Holland takes them, or they are retained in France. So well is this understood, that some years back "the proprietor of the vinyard La Rose used to hoist, on a flag-staff above his house, the English flag in good years, the Dutch in middling years, and the French in bad years."

The vine begins to produce at five years of age, and will, when the soil is deep and congenial, continue to flourish with unabated vigor two hundred years. Its roots have been known to descend, in pursuit of nourishment, to a depth of from twenty to thirty feet. The best species of the red grape is the *verdot*. Those cultivated for white wines are *sauvignon*, *rezinot*, and *semillon*.

The value of land in this district rises from £60 to £200, the produce in some cases £15 per acre, and the average profit seven to ten per cent, which is decidedly more than, under the present system of cultivation, is yielded on the best lands of France by corn cultivation.

AMERICAN AGRICULTURE.

Mr. IRVINE, of the British legation at Washington, in conformity with instructions, has made a report to authorities at home, upon the state of agriculture in this country. He notices the small crops produced here in comparison with the amount of cultivable land and our large population, and reasons upon these things, as follows:—

The immense extent of territory, and the comparative scantiness of the population, have induced a good deal of carelessness in the cultivation of the soil. The price of land being low, the proprietors have found it more economical to work out their land than to expend their capital in manures and other means for preserving its productive qualities; and when the soil has become exhausted, the owners have left it for some new settlement. The consequence of this has been that, instead of full and abundant crops, in many parts of the older settled portions of the country, the fields do not yield at present half as much as formerly, and in many localities not a third, nor even a quarter, as much; and that, notwithstanding the advantages of climate, the facility of transport to available markets, and the lightly taxed condition of farmers and planters, the ratio of increase in agricultural products of the United States is not in proportion to the increase of population.

SUGAR ESTATES OF CUBA.

The Cuban *Messenger* gives the following account of the principal sugar estates in the island :—

	Size in acres.	Crop in boxes.	Slav's.
Acana, jurisdiction of Matanzas, proprietor Don José E. Alfonso	1,491	7,000	360
Aguica, or Santa Teresa, jurisdiction of Cardenas, proprietor Count Fernandina	2,944	6,000	380
Alava, jurisdiction of Cardenas, proprietor Don Julian Zulueta	4,882	20,000	600
Armonia, jurisdiction of Matanzas, proprietor Don Miguel Aldama	2,204	6,000	350
Asuncion, jurisdiction of Mariel, proprietor Don Lorenzo Pedro	8,313	6,500	400
Atenas, jurisdiction of Sagua, proprietor Don Ignacio Echarte	2,000	6,000	300
Conception, or Echeverria, jurisdiction Cardenas, D. Francisco Pedro y Herrera	8,014	17,000	412
Flor de Cuba, jurisdiction of Cardenas, proprietors Messrs. Arrietta	8,081	18,000	729
Guina de Toto, jurisdiction of Trinidad, proprietor Don Justo G. Cantero	6,295	6,000	400
Intrépido, jurisdiction of Cardenas, proprietor Don Miguel Cardenas y Chavez.	1,921	8,000	362
Monserrate, jurisdiction of Cardenas, proprietor Count Santavenia	2,000	7,000	360
Narciso, jurisdiction of Cardenas, proprietor Count Penalver	3,578	10,000	400
Ponina, jurisdiction of Cardenas, proprietor Don Fernando Diago	2,235	15,000	500
Progreso, El, jurisdiction of Cardenas, proprietor Marquis of Arcos	5,965	8,500	590
San Martin, jurisdiction of Cardenas, proprietor D. Francisco Pedro o y Herrera	7,286	15,000	452
San Rafael, jurisdiction of Matanzas, proprietors Messrs. Ruiz & Adelantado	5,890	6,000	380
Santa Rosa, jurisdiction of Matanzas, proprietor Don Domingo Aldama	2,000	8,000	330
Santa Susana, jurisdiction of Cienfuegos, proprietors heirs of Parejo	11, 90	16,000	866
Tinguaro, jurisdiction of Cardenas, proprietor Don Francisco Diago	1,878	18,000	560
Trinidad, jurisdiction of Matanzas, proprietor Don Estiban Santa Cruz de Oviedo	1,869	7,000	850
Union, jurisdiction of Matanzas, proprietors Messrs. Fernandez	4,288	10,000	400
Victoria, jurisdiction of Cardenas, proprietor Don Simon Perez de Teran	2,010	7,000	820
Urumea, jurisdiction of Cardenas, proprietor Señor de Zuasuabar	2,010	10,000	400

According to the preceding table, the production averages twenty-three boxes per negro, or 10,000 pounds; but, in the greater part of those estates, where the modern machinery has not been introduced, only eleven boxes, or 4,750 pounds of sugar, can be reckoned per negro. There are above 2,000 sugar estates in the whole island, and the number increases almost daily. In 1775, there were, in all the islands, 473 sugar estates. The first sugar estate was established in 1535.

FORESTS—THEIR DECREASE.

A rough estimate, made on the data of the census of 1850, shows that the decrease of forests has been, since 1790, at a rate averaging 6 per cent every ten years; but as it began much slower, it must now be fully 10 per cent, which in thirty years will reduce the *available timber lands* of the United States and Canada to an average of 30 per cent of their surface. (Wood for fuel is left out of the estimate entirely.) But if it took ninety years or more to cause a dearth of timber, we must consider that that time at least is requisite for the growth of a timber tree, and should adopt means for carefully preserving the trees now growing, as well as to raise more for future generations. Our own time is likely to see that scarcity, now limited to the older settled or woodless regions, become *general.*

From the experience of centuries in Russia, it has been estimated that a country requires a percentage of 37½ of its surface timbered, in order to be *richly* supplied; if it has under this amount, but over 22½ per cent, it is *moderately*, and if under 22 , *poorly* wooded. In Russia the circumstances of forest growth were originally similar to those of this country, except that the "steppes" or plains of Russia lie in its south and east portions, from which they extend into the deserts of Tartary. Russia has indeed a larger total population than the United States, but no portion of equal extent within it is so densely settled as Massachusetts, which had, in 1850, 127½ to the square mile, while Russia Poland had but 123, and other districts less.

But when Russia had much less population, 1649, it was found necessary to

pass laws for the preservation of growing timber, though nearly all the country north of latitude 60° was originally almost an unbroken forest, and much of it still is so, (trees grow in Europe up to latitude 70°.) In 1750, laws were passed and means commenced for *cultivating* forests; German foresters were employed, but after a few years were found inferior to native Russians in the business, as the circumstances of climate were quite different in the two countries. As much of the woodland belonged to the government, the results of the system were found so profitable, that it was gradually enlarged in its plan and consequent importance, until it became one of the most valuable branches of government economy. Large schools were established, where everything relating to the subject is taught, such as surveying, botany, chemistry, meteorology, and many minor branches. It was found, in time, that the increase in productiveness of the forest *alone* covered all expenses of enlarging the plan. The importance of the work in 1850 may be judged by these facts, viz.: 24,500,000 of woodland have been surveyed, inventoried, and their value estimated; 49,000,000 acres more have been surveyed only; 4,500,000 put under strict protection, and 30,000 drained; 5,250,000 trees had been planted, 1,984 pound of tree seed sown. The value of timber saved from fires by careful surveillance was estimated at over $500,000, (that amount being lost previously in some seasons.) The art of causing trees to grow on the woodless steppes had been completely established. In the shifting sands of the desert of Aleschki, over 4,000 acres had been converted to a thriving forest, supporting nearly 5,000,000 trees. Other large tracts are gradually being planted to provide for a succession of crops in future. Planting these steppes, and, indeed, any extensive tracts, was found to need government assistance, being too costly for individual profit, as in that dry climate coniferæ require 120 years and foliaceous trees an average of 60 years.

Though considered so important a subject there, the income of the country from exportation of lumber is far less than here, averaging, about 1850, $2,500,000 per annum, while here it was $1,800,000 in 1821, and rose to near $5,000,000 in 1853. But the later years show a falling off in the increase of its export from here, probably because it had become scarcer near our seaports. And it deserves more consideration here when we consider that we have (with Canada) the best and greatest variety of timber trees in the world, far excelling in that view the forests of the old temperate world. East of the Rocky Mountains, (omitting the more tropical forms of Florida only,) we have over 190 species, of which at least 25 have no representatives in Europe or Northern Asia, and 12 others have their allies only in Japan and China. Besides these, we have an unequaled variety of species of pines, firs, oaks, birch, elm, ash, and others of the most useful trees.

Between the eastern base of the Rocky Mountains and the Pacific coast there are about 100 more species, and nearly all of the 300 species of the country could be cultivated over at least two-thirds of its area with advantage.

PARCELING OF LAND IN FRANCE.

The inconvenience of parceled morsels of landed property strike the eye at once. They are most visible in the fertile regions, where the possibility of obtaining a living by spade labor has availed itself most largely of the law of equal

partition. The soil of the entire country is said to be departed into 126,000,000 parcels. Calculating the population at 30,000,000, there are three parcels and a half to each person! What is this but another phase of what may still be seen in Ireland, where, in the difficulty of apportioning a small farm equally on the death of the holder, his children have endeavored to satisfy equity by allotting each other several pieces of various quality; so that no one's lot is all together, but scattered up and down and here, and there. The French now seek some remedy at the hands of their Legislature against this indefinite process of morselling, and in the hope of seeing how their neighbors, similarly afflicted, may contrive—not, indeed, to turn the patched coat of their country into a new garment, yet to effect some consolidation of the patches—they look eagerly for an initiative to the neighboring States of the German Rhine, which are suffering from the same evil and are seeking to heal it.

THE JAPANESE SILK WORM.

This species, which Mr. GUERIN MENEVILLE has naturalized in Central France, is reared in the open air, and its food, the leaf of the Japan varnish tree, prospers in the poorest soils, capable of producing no grains, vines, nor grapes for pasture. The worm demands very little care; it is exposed with impunity to violent storms, has not been affected by the epidemic so fatal to the silk culture in Southern Europe, and may be destined to furnish for Western countries, as it has for many centuries in China, the silk of the people. At the Chateau de Leygouttier, the residence of Mr. AIGUILLON, a distinguished agriculturist of Toulon, a part of these worms were raised in a close cabinet, another set in a green-house, well aired both day and night, and a third division in the open air upon hurdles left out doors, and on trees merely covered with a netting for protection against birds.

At the Chateau de Coudray-Montpensir, also Count LAMOTTE BARACE has had these silk worms reared in the open air on magnificent clumps of the Japanese varnish tree, twelve to sixteen feet high. The cocoons obtained from those kept exposed to all weathers are larger and richer in silk than from those which have been protected or confined; and at Toulon, as at Coudray, the worms have undergone several violent storms, with beating rains and furious gusts, without appearing to suffer in any way. At Coudray, after a hurricane, July 20 and 21, 1859, which broke or tore up many trees and carried away the suspension bridge of Langeais, over the Loire, they were found next morning with the rain flowing over them, eating and weaving their cocoons on the trees where they had maintained themselves safely.

SILK OF ZURICH.

The report of the silk industry of Zurich gives the number of pounds exported for the six months ending June 30, 1860, at 655,640, against 561,592 lbs. last year—an increase of 15 per cent.

FLAX AND SILK IN GREAT BRITAIN.

The quantity of flax used in Great Britain in 1859 was 4,716,867 cwts., the value being £7,257,875. Of silk, 9,290,276 pounds, value £9,754,779.

STATISTICS OF POPULATION, &c.

EMIGRATION FROM THE BRITISH ISLES.

The emigration movement commenced in 1815, on the close of the great European convulsions, and since that date it is calculated that 4,920,574 persons have migrated from the British isles. Of these, 1,186,735 went to the North American colonies, 2,960,706 to the United States, 686,899 to the Australian group of colonies, and 86,234 to other localities. The annual average from 1815 to 1859 was 109,347, and for the last ten years 248,958, illustrating the well known fact that of late emigration has proceeded in a greatly accelerated ratio. It cannot fail to strike every one who glances at these figures that we have succeeded somehow in diverting, by the excessive prices demanded for colonial land, the great bulk of our emigration to the United States, although this was formerly not the case. Thus, from 1815 to 1834, the emigration stream flowed more freely into British America than into the United States, the emigrants to the former regions having been 402,681, and to the latter 268,633, while from 1834 to the close of last year the emigration to Canada amounted to 784,054, and that to the United States to 2,692,072. In short, the extraordinary fact appears that Canada is not so attractive an emigration field now as it was thirty years since, the emigration thither having amounted to 6,680 last year, and to 13,307 in 1829, while the total emigration was 120,432 last year, and only 31,198 in 1829. The emigration to Australia also reflects the disastrous policy of charging £1 per acre for land 15,000 miles from Great Britain, while it is to be had in the United States at 5s. per acre, 3,000 miles off. Thus, the emigration to Australia reached a total of 32,625 in 1841, and in the following year, when the £1 an acre was first insisted on, it fell to 8,534; in 1843, to 3,478; in 1844, to 2,229, and in 1845, to 830. The depression of the home agricultural interest again forced up the figures to 32,191, in 1849, and 16,037 in 1850, and the gold discoveries have since largely increased the emigration; but it is nevertheless evident that Australia has flourished, not in consequence, but in spite, of the policy adopted toward her.

PENNSYLVANIA CITIES.

The census returns of Pittsburg and its suburbs, it is estimated, will foot up 130,000. In the year 1850, the same territory had 88,312. Pittsburg proper has fifty-five thousand; the population on the south side of the river, including South and West Pittsburg, Birmingham, East Birmingham, Monongahela, and Temperanceville, will reach eighteen thousand; Alleghany City thirty-five thousand, and the rest is in the incorporated suburbs and adjacent townships. We have now most of the leading Pennsylvania cities and towns, as below:—

Philadelphia	650,000	Pottsville	13,000
Pittsburg	130,000	Scranton	12,000
Reading	24,000	York	10,000
Lancaster	18,000	Easton	10,000
Harrisburg	14,862	Allentown	8,047
Norristown	13,500	Wilkesbarre	7,989

RUSSIAN EMANCIPATION.

We translate from the *Gazette du Nord* the following bases of emancipation, which that journal announces as having been adopted by a majority of the deputies of the nobility, and upon which the final ukase will be issued during the course of the present autumn:—

1. The immediate grant of individual liberty to the serfs is the more indispensable, both to the landholders and to the serfs, because both consider it as having existed in fact since the ukase which laid down the general principles of emancipation.
2. The official promulgation of the individual liberty of the serfs fixes two years as the term of probation, at the end of which time their emancipation will be complete.
3. During these two years, the landholder shall have power to make contracts with the serfs, as they may agree, either to sell him land in fee simple, or to lease it to him; but this lease shall not be for a less period than six years.
4. In case the landholder shall not have been able to come to a satisfactory arrangement with his serf at the expiration of the two years, the government shall intervene to give to the serf the desired amount of arable land on the existing bases of the economic condition of the serfs. giving them, however, the option of taking a less amount of land than they now occupy.
5. A local commission, appointed for the purpose, and divided into an original and an appellate jurisdiction, shall be established to appraise, according to present prices, the lands which are to be granted to the serfs.
6. The sum which shall thus become due to the landholder as the purchase money of his land, shall be reimbursed by the government, either in cash or in bonds, bearing five per cent interest.
7. As to the manner in which the government will collect these amounts, the landholders need have no concern about it, for this will be accomplished without their participation, and as the government shall hereafter determine.
8. Finally, as soon as the serf shall become a citizen, in consequence of emancipation, the power of the landholder over him entirely ceases.

IMMIGRATION INTO THE WEST INDIES.

The immigration into the West Indies, to supply the deficiency of labor existing there, has been prosecuted on a very considerable scale of late years, more freely than is, perhaps, generally supposed. Thus, since 1848, 5,557 immigrants have been introduced into Jamaica, 17,165 into Trinidad, 38,921 into British Guiana, 1,674 into St. Lucia, 895 into St. Vincent, 2,034 into Granada, 1,213 into Antigua, 852 into St. Kitt's, and 292 into Tobago, making an aggregate of 68,603. The immigration has been derived from the following sources:— Darien, United States, 32; Great Britain, 22; Havana, 276; Saba, 23; Sierra Leone, 6,543; Kroo Coast, 273; St. Helena, 7,181; Rio de Janeiro, 619; Madeira, 12,670; Azores, 164; East Indies, 36,091; China, 2,806; Cape Verds, 1,198. Since 1848, no fewer than 192,992 immigrants have also been introduced into the great sugar-producing colony of the Mauritius, nearly the whole of them, 191,996, having been drawn from the East Indies. The transport of the immigrants from the East to the West Indies has been attended with a rather heavy mortality. Thus, in the case of 2,927 immigrants dispatched to British Guiana from Calcutta and Madras, in the season 1858–9, only 2,714 were landed, exclusive of seven infants born on the voyage. Of 8,713 immigrants into Trinidad, dispatched from the same ports, only 8,418 were landed, exclusive of eighteen infants born on the voyage; and of 344 persons shipped from Calcutta to Granada, only 299 were landed. The mortality, in fact, was

about seven-and-a-half per cent on the whole number of immigrants embarked, while in the case of British emigrants to Australia in 1856–7–8–9, the deaths were only about one per cent. At the same time, every care appears to be taken to secure the health of the immigrants to the West Indies, by means of efficient ventilation, exercise in the open air, cleanliness of berths and decks, inspection of food, due supply of medicines, and surgical aid. The constitution of Asiatics (who are almost unaccustomed, in remote villages, to even a sight of the great deep) seems to be more feeble than that of Europeans, and less fitted to endure changes of climate. The immigrants are engaged for five years, and are hired at a fixed sum of four dollars per month; but if, on their arrival in the colonies, they prefer to be paid by the day, in the same way as non-contract laborers, the necessary alteration is made in their contracts, and they are placed on the same footing as to remuneration. The immigrants are provided with a free passage, and, if any one desires it, an advance of twenty dollars is made to him, repaid, subsequently, by deductions from his wages. Women, when they accompany their husbands, are unfettered by any conditions.

POPULATION OF MARYLAND IN 1782.

The Baltimore *American* contains the following interesting paper:—

A RETURN OF THE NUMBER OF INHABITANTS IN THE STATE OF MARYLAND, TAKEN MARCH, 1782. NUMBER OF WHITE INHABITANTS AND FREE MALES ABOVE TEN YEARS OF AGE IN THE SEVERAL COUNTIES OF THE STATE AS TAKEN IN MARCH, 1782.

Counties.	Free males above 10 years.	Number of white inhabitants.	Counties.	Free males above 10 years.	Number of white inhabitants.
St. Mary's	1,773	8,459	Baltimore	3,165	17,878
Somerset	1,598	7,787	Anne Arundel	2,229	9,370
Calvert	894	4,012	Worcester	733	8,561
Montgomery	2,160	10,011	Harford	2,243	9,377
Washington	2,579	11,488	Cecil	2,000	7,749
Queen Anne	1,742	7,767	Frederick	3,785	20,495
Caroline	1,293	6,230	Prince George's	2,259	9,861
Kent	1,394	6,165			
Talbot	1,478	6,744	Total	35,268	170,688
Dorchester	828	8,927			

E. E. DANL. JENIFER.

NUMBER OF NEGROES IN THE STATE OF MARYLAND, TAKEN BY THE ASSESSORS IN MARCH, 1782.

Negroes under 8 years of age	27,626
" males and females, from 8 to 14	13,399
" males, from 14 to 45	16,246
" females, from 14 to 36	13,832
" males, above 45, and females, above 36	12,259
Total	83,362

Test—DANL. JENIFER, Sept. 13, 1785.

We are thus shown that, according to this census, Maryland, in 1782, had a population of 254,052. The compendium of the United States census of 1850 puts Maryland down in 1775 as having only 174,000! white of course; but our representatives in Congress, in 1774, making their estimate no doubt from the known number of taxables, placed the whole number at 320,000. This was probably too large, but from so many returning to England, fleeing to other States, slaves decoyed to the enemy, and soldiers slain in battle and lost by other casualties of war during the Revolution, all this we can well understand left Maryland with a much smaller population in 1782 than she had in 1775.

MERCANTILE MISCELLANIES.

GOVERNORS OF CUBA.

We find in the Cuban *Messenger* of a late date the following list of the governors of that magnificent island. Under the Spanish rule, the first governor of this island was Don DIEGO VELAZQUEZ, who received the appointment from Admiral D. DIEGO COLON, in 1511. He remained in office until his death in 1524. He was succeeded by the following :—

D. Pedro de Barba, in 1528.
D. Gonzalo Nuno de Guzman, 1532.
D. Juan de Rojas, (conjointly with Doña Isabel de Bobadilla,) 1538.
D Hernando de Soto, 1539.
D. Juan de Avila, (lawyer,) 1545.
D. Antonio de Chavez, (lawyer,) 1547.
Dr. Gonzalo Perez de Angulo, 1549.
D. Juan de Hinestrosa, (*ad interim*,) 1550.
D. Diego de Mazariegos, 1554.
D Garcia Osorio, 1565.
D. Diego de la Rivera y Cepero, 1567.
Dr. Francisco de Zayas, (*ad interim*,) 1568.
D. Pedro Menendez de Avilés y Marquez, 1568.
Capt. D. Pedro Vazquez Valdez Coroado, 1570.
D. Juan Alonso de Navin, 1571.
D. Sancho Pardo Osorio, 1574.
D. Gabriel de Montvalo, 1576.
D. Diego de Soto, 1577.
Capt. D. Francisco Carreño, 1578.
D. Gaspar de Torres, (lawyer,) 1580.
D. Gabriel Lujan, 1584.
D. Pedro Vega de la Guerra, 1586.
D. Juan de Tejeda, 1589.
D. Juan Maldonado Barnuevo, 1596.
D. Pedro Valdez, 1602.
D. Gaspar Ruiz de Pereda, (first Captain-General) 1608.
D. Sancho Alquiza, 1616.
D. Geronimo Quero, 1620.
D. Francisco Venegas, 1620.
D. Damian Velazquez Contreras, 1625.
D. Lorenzo Cabrera y Corbera, 1626.
D. Juan Beltrian Viamonte y Navarro, 1630.
D. Francisco Riaño y Gamboa, 1634.
D. Alvaro de Luna y Sarmiento, 1639.
D. Diego Villalba y Toledo, 1647.
D. Francisco Gelder, 1650.
D. Pedro Garcia Montaños, (military governor,) 1654.
D. Ambrosio de Soto, (civil governor,) 1654.
D. Juan Montaño, 1655.
D. José Aguirre, 1656.
D. Juan de Salamanca, 1658.
D. Rodrigo de Flores Aldana, 1663.
D. Francisco de Avila Orejon y Gaston, 1664.
D. Francisco Rodriguez Ledesma, 1678.
D. José Fernandez de Cordova Ponce de Leon, 1680.
D. Andres de Munive, (military governor,) 1685.
D. Manuel de Murguia y Mena, (civil governor,) 1685.
D. Diego de Viana de Hinojosa, 1687.
D. Severina Manzaneda y Salinas, 1689.
D. Diego de Cordova Lazo de la Vega, 1695.
D. Pedro Nolasco Benitez de Lugo, 1702.
D. Luis Chacon, (military governor,) 1708.
D. Nicolas Chirino de Vendabad, (civil gov.,) 1703.
Marshal D. Pedro Alvarez Villarin, 1706.
Marquis de Casa Torres, 1708.
D. Luis Chacon, (military governor,) 1714.
D. Agustin de Arriola, (civil governor,) 1714.
D. Pedro Horruitiner, (civil governor,) 1714.
Marshal D. Vicente de Raja, 1716.
Lieut.-Col. D. Gomez de Maraver Ponce de Leon, (*ad interim*,) 1717.
Brigadier-Gen. D. Gregorio Guazo, 1718.
Brigadier-Gen. D. Dionisio Martinez de la Vega, 1724.
Marshal D. Juan Francisco Güemes de Horcasitas, 1734.
D. Diego de Peñalosa, 1745.
Marshal D. Juan Antonio Tineo de Fuentes, 1746.
Marshal D. Francisco Cagigal de la Vega, 1747.
D. Pedro de Alonso, (*ad interim*,) 1760.
Marshal D. Juan de Prado Portocarrero, 1761.
Dr. D. Pedro José Calvo de la Puerta, and D. Gonzalo Recio de Oquendo, as civil governors for Spanish population during the British occupation, 1762.
Lieut.-Gen. Count de Ricla, (as extraordinary commissioner,) 1763.
Marshal D. Diego de Manrique, 1765.
Brigadier-Gen. D. Pascual Jimenez y Cisneros, (*ad interim*, as second in command.) 1765.
Lieut.-Gen. D. Antonio Maria Bucarely, 1765.
Marshal D. Felipe Fons de Viéla, (Marquis de la Torres,) 1771.
Lieut.-Gen. D. Diego José Navarro Garcia y Valladares, 1777.
Lieut.-Gen. D. Juan Manuel Cagigal, 1781.
Marshal D. Juan Daban, (*ad interim*,) 1782.
Marshal D. Luis Unzaga, 1782.
Lieut.-Gen. Count de Galvez, 1785.
Marshal D. Bernardo Troncoso, (*ad interim*,) 1785.
Brigadier-Gen. D. José de Ezpeleta, (*ad interim*,) 1789.
Brigadier-Gen. D. Domingo Cabello, (*ad interim*,) 1789.
Lieut.-Gen. D. Luis de las Casas y Aragon, 1790.
Lieut.-Gen. Count De Santa Clara, 1796.
Lieut.-Gen. Marquis de Someruelos, 1799.
Lieut.-Gen. D. Juan Ruis de Apodaca, 1812.
Lieut.-Gen. D. José Cienfuegos, 1816.
Marshal D. Juan Maria Echeverry, (*ad interim*, as second in command of army,) 1819.
Lieut.-Gen. D. Manuel Cagigal, 1819.
Marshal D. Juan M. Echeverry, (*ad interim*.) 1820.
Lieut.-Gen. D. Nicolas Mahy, (died here.) 1822.
Brigadier-Gen. D. Sebastian Kindelan, (*ad interim*,) 1822.
Lieut.-Gen. D. Francisco Dionisio Vives, 1823.
Lieut.-Gen. D. Mariano Ricafort, 1832.
Lieut.-Gen. D. Miguel Tacon, (Duque de la Union de Cuba,) 1834.
Lieut.-Gen. D. Joaquin Ezpeleta y Enrile, 1838.
Lieut.-Gen. Prince of Anglona, 1840.
Lieut.-Gen. D. Gerónimo Valdez, 1841.
Lieut.-Gen. D. Francisco Javier de Ulloa, (*ad interim*,) 1843.
Lieut.-Gen. D. Leopoldo O'Donnell, 1843.
Lieut.-Gen. D. Federico Roncali, (Count de Alcoy,) 1848.
Lieut.-Gen. D. José Gutierrez de la Concha, 1850.
Lieut.-Gen. D. Valentin Cañedo y Miranda, 1852.
Lieut.-Gen. Marquis de la Pezuela, 1853.
Lieut.-Gen. D. José Gutierrez de la Concha, (Marquis de la Habana,) 1854.
Captain-Gen. D. Francisco Serrano y Dominguez, (Count de San Antonio,) 1859.

TRADING TOO MUCH.

The rush, the strain, the excitement, and the fevered anxiety of those who enter the great sweepstakes of business life for the purse of success, have been the frequent subjects of the pen of the moralist, but still all hobbies are ridden at full speed, under the lash, and with spurs driven into the rowels! Men will jostle each other and overcrowd their own strength and energy. Money is the great aim of all, and is as hard to obtain as the purse sometimes put at the top of a greased pole in European countries, when hundreds fail to secure it before one is shrewd enough to put sand on his hands and feet before he attempts to climb. Too much effort—too much expansion—too much business—is as fatal as supineness or over-caution. Hence there is a great deal of force in the following article from the Cincinnati *Times*, of a recent date:—

We are not disposed to croak and cavil over the times—hard though they may be. It is a good thing to have the money market tight for it makes men prudent and cautious. More men are ruined by doing too much business than by too little. Trading and talking are the great American characteristics, both of which we are apt to indulge in excessively. Now and then, very rarely, a man may talk himself into a fortune, but oftener he talks himself out of one. In prosperous times men enlarge their business, are tempted into new operations, and generally carry more sail than they can bear; consequently they very soon run into breakers—strike, founder, or go down! This is the brief career of more than one merchant in our own community. We do not need to cite examples in New York or Philadelphia. To be a good merchant requires coolness and calculation. It is a wise man who knows when he has done enough. It is a prudent man who takes advantage of rising tides, and watches well the ebb.

Long credits are a serious damage. All credit is unsafe. No man can trust out his goods, and get along by hiring money on the street. Debt in the city and debts in the country are different things. In the city men are prompt. Notes *must* be paid on the day of their maturity. In the country this promptness of business is unknown. The country trader feels no compunction if his paper is overdue a week or so. Perhaps he forgets that the note, being indorsed and in the bank, is liable to protest. The city merchants are *compelled* to give credit, they say! Formerly there was a competition in cash trade; now the idea seems to be who can get rid of the most goods "on time."

We need more producers. As old John Unit says, a "population consuming and not producing, can never be made to pay," and John is right. The real wealth of a nation is its labor. A country may abound in natural gifts, but the hand of toil must bring them forth. There are too many traders in the United States already, and they trade too much. The balance is against us over the water. Our corn and wheat, and beef and pork, will not pay for our articles of imported luxury, which we would be better off without. If we would trade, we must have capital, and capital must be *worked out* from the earth. Therefore we require more farmers, more producers, more toilers. Trading on credit is a fallacy which men sooner or later find out to their sorrow.

It is the easiest matter in the world to trust out goods to country merchants, but the work of collecting is an intolerable nuisance! Debt is a hard master. He is intolerant and slow to be satisfied. How he dogs a man's footsteps like some hungry shadow. Debt is reciprocal. If country customers do not pay up prompt, our merchants cannot pay their Eastern debts without borrowing, which is the worst business that ever a human being engaged in. "He that goes a borrowing goes a sorrowing," says Poor Richard. Almost any business man now-a-days can testify to the truth of the maxim. Great troubles come from the feverish haste to get rich, evinced by the American people. Thus they overtrade, and run into wild speculations, make great strikes now and then, but where one succeeds ten go to the bottom. Too much trading is bad business—*it don't pay!*

THE COST OF RECOVERING A DEBT.

A Western paper gives the following illustration of the operation of law upon debt :—

A gentleman was leaving the city for a brief period, and gave a black boy, to whom he was indebted, an order on a friend for the amount of the debt—six dollars. The boy knew nothing about orders, and never presented it. When the gentleman returned he was surprised by a summons to be and appear at the office of a certain justice to answer the aforesaid claim of six dollars. On the morning appointed for the trial he appeared and found the court ready to proceed—the plaintiff grinning behind the back of a young attorney, and a brace of constables armed with big clubs ready to knock down and drag in witnesses by the score if they were needed. He cut short the matter at once by acknowledging the justice of the claim, and offering to pay, provided the suit was withdrawn. The black boy grinned and nodded, but this proceeding did not suit the court. The gentleman swore he would not pay any cost, and as he was one who carried his estate in his pocket, the court knew he was in a condition to keep his word. But the "court knew herself," and after a little cogitation rendered judgment for the debt against the defendant, and for costs against the plaintiff. The six dollars was received and credited on the docket, and the darkey has been ever since sweeping out the room of the young lawyer who collected the debt in payment of his fee.

The Boston *Transcript*, of a similar date, has the following very appropriate remarks in the same direction. Tribunals of arbitration and adjustment must soon supersede this expensive kind of "game of chance," which is spread like a net to swallow the profits of business :—

We have no disposition whatever to bring our courts into disrepute with the people; they are a necessary evil; they certainly are a benefit; they restrain much vice on the criminal side, and do something in the way of justice on the civil side. But from the very nature of the human reason, they are unreliable sources of power, and men, if they have differences, had better exercise a spirit of compromise towards each other, than trust to any court on the face of the earth. The habit which the vulgar indulge in of abuse of the lawyer, is altogether without justification. By the "vulgar" we mean those persons who know nothing of science, and the great difficulties in the way of arriving at anything like harmony in the pursuit of knowledge. The lawyer has his bread to earn—he has passed through (if he is a lawyer) an amount of thinking which entitles him to a living; if a case offers for which he sees any chance with a judge or jury, though it may be a "hard case," who can blame him for making a good fee if he has the ingenuity so to marshal authorities in behalf of his distressed client, as to sustain his suit?

When persons "go to law," they know perfectly well, or ought to know, they have nothing to expect but *law*—and what this may turn up to be is altogether problematical in general practice, depending something on the state of the weather, and something on the digestion of judges and juries, and much on the *ability* of counsel. It is no use to litigate with a dull lawyer, on small fees—for such a fellow damages the case, if he does not lose it. Law being a game of *chance*, an *expert* only should play to win. As a game of chance, we look upon jurisprudence as an exceedingly clever institution; it exercises the intellect of those who love disputation, and who can do less mischief in law than they would be able to affect out of it; it is a sort of clapper on the exuberance of genius, for law is a most wholesome discipline and check to those who thoroughly comprehend it. The lawyer who is in the habit of looking at all objects, all human interests, as the law bears upon them, is from the very nature of his profession constrained to a certain degree of decorum to escape the meshes he is oftentimes only too happy to see others fall into. No lawyer of any standing would care to subject himself to a process either civil or criminal, and hence it is that, as a class, these

men are as unexceptionable as the law, which is not saying much in their behalf; still, it is much more than can be said of many other orders of men.

Let this indiscriminate abuse, then, of lawyers, so common among the middling classes, no longer obtain. Their business is to make the most of principles as their clients' interests may suggest; and if they are smart enough to manage hard cases successfully, the censure should not be visited on them, but on the fact that the human reason, in the abstract, is without any permanent and undeviating apprehension of the idea of justice Circumstances are of such a variety of forms and shading, that they are susceptible of being worked up by a subtil genius into almost any conceivable aspect of right, and hence the difficulty of settling much in law, while circumstances are so powerful to control it.

NO EXCELLENCE WITHOUT LABOR.

There is perhaps no general principle more fully established than this—that there is no excellence without labor; nothing great or noble has ever been accomplished without hard, persevering labor; no great enterprises have been carried out without labor. How did ALEXANDER become one of the greatest warriors of antiquity, the conquerer of all the then known world, who wept when there were no more worlds to conquer? How did CÆSAR extend his conquests until he made Rome the mistress of the world? How did NAPOLEON—at the mention of whose name the heart of the Frenchman even now thrills with feeling, and his eye kindles with emotion—starting in life with no friend but his sword, fight his way upward till he became Emperor of France? How did he at the head of his army, go forth to conquer and astonish the world by the number and greatness of his victories, and make Europe tremble at his progress? How did these men accomplish so much? They were ambitious, they wished to achieve for themselves a name as great military chieftains, and in the pursuit of this object they spared no labor, they underwent hardships and privations; in short, they sacrificed everything at the shrine of their idol ambition.

NAPOLEON when about to lead his army over the Alps, said to the engineer who had been sent forward to ascertain the possibility of the undertaking—

"Is it practicable?"

"It is barely practicable," was the reply.

"Let us set forward, then," said NAPOLEON.

They did set forward, and that extraordinary undertaking, which won the admiration of the world, was successfully accomplished. This short conversation furnishes an index of NAPOLEON'S character. It discloses the secret of his success, his indomitable energy and perseverance in whatever he chose to undertake.

With regard to intellectual greatness, it is especially true that there is "no excellence without labor." No man ever rose from a humble position in life to that of a distinguished scholar or great man, great in the true sense of the word, without much labor. All the great men that have every lived, men of learning and disciplined minds, became great by their own exertions. They did not hesitate to make sacrifices, to undergo hardships, to expose themselves to persecution and ridicule in the pursuit of knowledge. They felt that knowledge was a priceless gem, an immortal prize for which they were seeking, one which would not desert them at death, but which, if rightly used, would conduct them to happier worlds above; and in the pursuit of this object, they scorned whatever had a tendency to divert their attention from this, their beloved pursuit. These great men frequently met with ridicule and persecution. Their motives and conduct were not understood and appreciated by the men of their age. It remained for after generations to honor and immortalize their names, and reap the reward of their labors. To them we are indebted for all the great discoveries and inventions that have benefited mankind, and for whatever civilization and refinement we now possess.

Numerous instances might be given to show that there is no intellectual greatness without labor. NEWTON, the great philosopher, when asked how he had succeeded in making so many important discoveries, replied—"by thinking."

By profound study and thought this great man succeeded in tracing from the trifling occurrence of an apple falling from a tree, the laws which govern the motions of the heavenly bodies. By observation and study COLUMBUS became convinced of the globular shape of the earth, and sailing westward, discovered a new world. FRANKLIN, after much observation and study, succeeded in establishing the identity of lightning and electricity, proving that lightning is only electricity on a large scale, thus adding to his fame as a statesman, that of a philosopher. What difficulties and hardships did the late Dr. KANE pass through in acquiring the admiration and renown everywhere so deservedly paid to his name. Possessed in childhood of a feeble constitution, he overcame, as it were, by the strong power of his will, his natural predisposition to disease, passed through a seven years' course of study, and at an early age graduated with high honor as Doctor of Medicine, having been characterized throughout as a thorough student. It was there that he acquired that mental discipline and well balanced judgment that so well qualified him for the duties that afterwards devolved on him as commander of an expedition to the frozen seas.

These examples are sufficient to teach us that would we ourselves become great, we must labor for it. If we would distinguish ourselves above the common mass of mankind we must labor for it. If we would acquire an education that will fit us for usefulness and distinction, we must study, study diligently, study thoroughly.

Lastly, if we are determined to obtain an education, no difficulties need discourage us. In this case difficulties, instead of discouraging us, will, by being surmounted, only strengthen our minds for further exertion. One writer has said, "The highest idea of education is the training of the mind to surmount obstacles." We are told of some ambitious young men, afterwards distinguished scholars, that they acquired their first knowledge of the classics by studying at night after their day's work, by the light of the blazing wood fire on the hearth. Let us emulate their example, and be discouraged by no difficulties; remembering always, "no excellence without labor."

BENEFITS OF ADVERTISING ILLUSTRATED.

The following remarks are evidently by one who has experienced the benefits of advertising, although the anecdote rather illustrates an evil than a benefit:—

Were a group of genuine philosophers assembled for the purpose of investigating the means whereby they derived their various aequirements, the grand corollary of their deliberations would be, that the universal, and only possible process of communicating knowledge is advertising. And when we regard the fact, that the vast domain of science and art is indebted to this luminary for light and vitality, that by its effulgence was espied the subtil clue to nature's law of gravitation, and divine revelation was reflected upon the human soul, it swells into a prolific theme of momentous importance. Volumes might be filled with an enumeration of its advantages. Indeed, the same arguments might be adduced in its favor as are advanced for the diffusion of knowledge.

By long observation and experience has it been discovered that to accomplish the merchant's object at the present day, it is indispensably necessary for him to read the newspapers, and to advertise extensively an account and description of his merchandise. His main object is to procure good articles at reasonable prices, and to dispose of them as soon as possible, at a fair profit. To do this, he must know what others have for sale, and make known to them what saleable articles he has on hand. Thus, precisely as he was attracted to his particular mart for the purchase of his stock, he will attract customers to call and buy.

ILLUSTRATION.

A practical joke which occurred in Baltimore some time since, showed this state of facts to be true.

An advertisement appeared for "A Porter," to serve in a large mercantile

house, No. 8 Bowly's Wharf, corner of Wood-street, at a salary of seven dollars a week. The scene is thus described by a cotemporary :—

At an early hour, before either clerk or proprietor appeared, there was collected in front of the store a motley crowd. numbering over sixty persons, and more were momentarily coming. They were of all colors, sizes, nations, kindreds, and tongues. As might be expected, quite an excitement had sprung up amongst these anxious competitors for so favorable a position and liberal compensation. Some had letters of recommendation, others were backed up by their friends, and all indicated the commendable desire to be first in making application, presenting their credentials. The clerk finally made his appearance, and was no little surprised at seeing the premises so thoroughly besieged. It was with extreme difficulty he could effect an entrance, and, this done, still more annoying was it to keep the phalanx at bay. He placed himself arthwart the door and threatened violence to all intruders. Finally the proprietor himself came in sight. His eyes fell upon the unlooked-for crowd, and not being aware of the preliminaries, concluded that some terrible calamity had befallen his establishment. "My warehouse has been on fire—robbers have perpetrated their midnight depredations—perhaps murder most foul has occurred." Such were his soliloquies as his pace quickened and he reached the scene.

Necessity knows no law, and competitors in business are not very fastidious in their respect of persons. Thus, even the proprietor himself, being unknown, and looked upon with jealousy, found difficulty in pressing through the crowd. It became known, however, that he was the gentleman who had advertised for a "*Porter*," and simultaneously almost a hundred voices asked for the situation. A degree of surprise and consternation overcame him. He was taken all aback. He expostulated—said no such advertisement had appeared—he wanted no porter. "Here's the paper," cried twenty voices, (holding forth the document.) "and that's your number—see, number *six ;* it is in figures, and figures can't lie." All this time "the cry was still they come," the excitement increasing, rendering confusion worse confounded. "Clear out; I have not advertised—I want no porter," were the exclamations. Finally, and with great difficulty, a breathing spell was gained, and by dint of extra eloquence the anxious seekers after employ were made to understand that some wag had played a practical and we must say rather an annoying joke upon the merchant, by inserting the advertisement without authority. At a late hour this morning applicants were still calling, and it was as much as one person, as clerk, could do to make necessary explanations, and dispatch them.

TRADE AND POPULATION AMONG THE CHIEF EUROPEAN STATES.

We give below a table showing the trade of the principal European States, up to the latest dates, compiled by M. Chemin Dupontes, an able French statist, and recently presented by him to the Ministry of Commerce for France :—

	Population.	Value of trade in francs.	Value of trade per capita.
Hanseatic Towns.	500,000	3,110,000,000	$127 00
Holland.	3,451,000	1,600,000,000	88 50
Switzerland	2,400,000	900,000,000	72 00
Belgium	4,585,000	1,819,000,000	67 00
Great Britain.	28,154,000	8,350,000,000	57 50
Sardinia.	5,042,000	843,000,000	29 50
France.	36,039,000	5,329,000,000	27 00
The Zollverein.	32,700,000	2,200,000,000	13 25
Austria.	39,400,000	1,811,000,000	7 80
Russia in Europe.	60,123,000	1,100,000,000	3 00
Total.	212,394,000	27,062,000,000	$24 75

TOBACCO.

The Dean of Carlisle has recently delivered a lecture in England upon the subject of tobacco, from which are gathered some interesting statistical information concerning the use of the weed in that and other countries.

In 1856, 33,000,000 lbs. of tobacco were consumed in England, at an expense of £800.000 or $4.000,000, to say nothing of vast quantities smuggled into the country. There is a steady increase upon this consumption, far exceeding the contemporaneous increase of population In 1821, the average was 11.70 oz. per head per annum; in 1851. it had risen to 16.36, and in 1853 to 19 oz., or at least at the rate of an increase of one-fourth in ten years.

There are 12 city brokers in London, expressly devoted to tobacco sales; 90 manufacturers. 1.569 tobacco shops, 7,380 workmen engaged in the different branches of the business. and no less than 252,043 tobacco shops in the United Kingdom And if we turn to the continent. the consumption and expenditure assume proportions perfectly gigantic. In France much more is consumed, in proportion to the population, than in England. The emperor clears 100,000,000 francs annually by the government monopoly.

In the city of Hamburg 40,000 cigars are consumed daily, although the population is not much over 150,000; 10,000 persons, many of them women and children, are engaged in their manufacture; 150,000,000 of cigars are supplied annually; a printing press is entirely occupied in printing labels for the boxes of cigars, etc., and the business employs £4,000,000, or $20,000,000.

In Denmark the annual consumption reaches the enormous average of 70 oz. per head of the whole population; and in Belgium even more—to 73 ozs., or 3.6 lbs. per head.

It is calculated that the entire world of smokers, snuffers, and chewers consume 2,000,000 of tons of tobacco annually, or 4,480,000,000 lbs. weight—as much in tonnage as the corn consumed by 10,000,000 Englishmen, and actually at a cost sufficient to pay for all the bread-corn in Great Britain. Five-and-a-half millions of acres are occupied in its growth, the produce of which, at two pence per pound, would yield £37,000,000 sterling, or $185,000,000.

The time would fail to tell of the vast amount of smoking in Turkey and Persia. India, all classes and both sexes indulge in the practice. The Siamese both chew and smoke. In Burmah all ages practice it—children of three years old, of both sexes. China equally contributes to the general mania; and the advocates of the habit boast that about one-fourth of the human race are their clients, or that there certainly are 100,000,000 of smokers.

Tobacco is, next to salt, probably the article most consumed by men, in one form or another, but most generally in the form of fume or smoke. There is no climate in which it is not consumed, and no nationality that has not adopted it. In the words of Pope, on a higher subject, it may be said to be partaken of "by saint, by savage, and by sage." The civilized European and some American nations are the smallest consumers of tobacco of any people, in consequence of its being everywhere, with them, an object of heavy taxation; of its being very generally a foreign commodity, or high-priced because raised in uncongenial climates; and, finally, its being confined in use, for the most part, to the male sex.

In New York city there are about 200,000 smokers, each using two cigars per diem, which make 400,000 every day. These will cost, for labor alone, at

$5 per thousand, the enormous sum of $8,760,000 annually, when made by hand.

There are imported into New York, annually, 12,000,000 lbs. of tobacco, distributed at follows:—Connecticut. 10,000 cases of 400 lbs each; Pennsylvania, 6,000 cases, 400 lbs. each; Ohio, 10.000 cases, of 370 lbs. each. From New York to Massachusetts, 5,000 cases of 400 lbs. each. We also import 6,000,000 lbs. from Havana, and a quantity from other Spanish ports; and we are told that, on an average, 20 lbs. of tobacco are required for every 1,000 cigars, and we can easily calculate that there are 906,000,000 cigars made in the city of New York alone in a year.

ONE PRICE.

But few things are more galling to human pride, or our self-respect, than the consciousness of being cheated. Not so much for the value of the loss we sustain as for the resentment we feel at being victimized—at being the object of spleen, malice, or cupidity; and whether the injury sustained affect our pocket, our reputation, or our person, the result is the same. If we fall on the ice, or slip down on the pavement, we may be hurt, but with an unruffled temper we gather ourselves up and make the best of it. If we drop a dollar in the river, or lose the amount by bad speculation, we soon forget the loss, and are happy. Not so, however, if we are pushed down, or if we are robbed or cheated of the sum in any way. This treatment gives rise to resentment, which rankles in our hearts until time and other cares obliterate the event from our memory. And even these results arile not so much from the actual malice of the perpretrators, as from our conception of the motive. We are unhappy because we believe our neighbor intended to injure us, and as soon as we are convinced to the contrary, our resentment ceases; we looked upon the whole thing as an accident, and all is over.

Well, what has all this to do with the "one price" system? Simply this, that every salesman ought to study human nature enough to know how to approach his customer, and the effect he has upon it.

"O had some power the gift to gi'e us,
To see ourselves as others see us,
It would from many a trouble free us,
And foolish notions."

Could the seller see himself as the buyer sees him, it would be of more value to him than many dollars; and the true way to accomplish this is to study his own nature. In doing this thoroughly he learns the whims and oddities of those he deals with.

Now, although the legitimate sphere of our Magazine is the counting-room rather than the church—commerce rather than religion—profits rather than morals—mammon rather than God, still we wish to show that even in point of profit and gain only, the one price system is better than any other—that it will secure and retain more customers, and such as are worth retaining, than any other course that can be adopted; we wish to show that the opposite course is as delusive as it is dishonest, and its legitimate effects will, sooner or later, recoil on those who adopt it. *While it is true that "the fools are not all dead," it is also true that there is a very general aversion among honest men to pay more than others for what they purchase. The man of pure intentions has not the heart to suspect that a double price is asked for the article he is buying, and is therefore more apt to pay it than the sharper who deals upon the same principle. The general customer desires to deal where he will not be robbed on account of his poor judgment; and will avoid the man who will overcharge for an article as he would a pestilence. The thought that he has been "sold" by a man in whom he had placed confidence, will rankle in his heart for years, and he will not only avoid the place, but prevent others from purchasing there. Thus it is, that as water will find its level, so a man's true character will at last be appreciated by the world, and he will lose or gain accordingly.

THE RESTLESS AND DISSATISFIED.

The following is, says the Philadelphia *Inquirer*, no doubt a true picture. It illustrates in a forcible manner the restless and dissatisfied spirit which exists in the minds of many of our young men. They are impatient, impulsive, and eager for change, and hence they wander from place to place, and rarely fix upon a permanent home. Enterprise is every way commendable; but a disposition to change upon every trifling occasion, is fruitful of much care, anxiety, and misfortune:—

A young man of moderate fortune and ability goes West, finds a field for speculation, makes an investment, soon fancies himself in need of a partner to share his fortune—*in prospect!* returns to the land of continuance, holds up in bright array the beauteous landscape gilded by the imaginary lucre which comes between the organ of vision and every object the speculator beholds. The lady catches the inspiration, is ready to be endowed by all his worldly goods, and soon sets about preparing to leave a home that has never known change since she was born. Happy is she while musing upon the brilliant and glittering life that awaits her "out West." Poor creature! "Ignorance is bliss" in her case, at least. She leaves the land of her birth, and is soon set down in one of our western towns. A nice little house is soon fitted up with the most assiduous care; the grounds around their dwelling laid out and planned, perhaps by herself, little dreaming she is planting trees for stranger hands to rear. Time rolls on; each nook and corner has become dear by some fond association. The taste and elegance displayed have only served to attract the eagle eye of some later speculator who has been attracted thither and already marked it for his own.

Soon the gold is offered; the husband hesitates; more gold is offered; the bargain consummated, and away go house and home! "Possession given immediately," so says the contract. The furniture is huddled into one corner to make room for the new proprietor; the wife, sent to the nearest hotel, is shown a room scarcely large enough to contain a bed, and there she may stop and *take breath*, while her husband looks around. Rumors reach his ear that away off in some other town, perhaps further west, is a fine chance to make a fortune! He thinks best to sell off the heaviest articles of his furniture, as they will be cumbrous to move. She must quietly acquiesce, even if her dear piano and all things else, however dear, are put under the hammer of the auctioneer. She is then left *to board*, while he goes in search of a new location. After a few months have elapsed they again become settled, to remain a few weeks or months, as the case may be. Thus it is one continual change. Perhaps a flock of little ones are gathered around her; if so, when the house is sold, the wife and children are sent east to afflict their friends with a six months' visit; and, after spending a few hundred or thousand dollars, going here and there, back and forth, she returns to her husband only to hear that "business is dull; he will go and try it somewhere else." And thus it is, year after year.

And now, I would ask, how long must we suffer this? Can you not suggest some means whereby we may fix their minds and induce them to have more stability? Or must we give up, and allow *speculation* to fill every corner of their heads, however large?

FREAK OF TRADE.

The Charleston *Mercury* states that the steamship Nashville, from New York, on Thursday morning, brought to this port, as part of her cargo, two hundred bales of upland cotton, consigned to Messrs. HALL & Co. The same house expect to receive shortly three hundred bales cotton by a schooner from the same place. The five hundred bales are to form part of the cargo of a Spanish bark now loading at this port for Barcelona. In consequence of the lowness of the stock of cotton on hand here at present, we are informed that an article similar in quality to the above cannot now be purchased here, and that this unusual state of our market has caused the above singular course of trade. Messrs. HALL & Co. have also dispatched three Spanish vessels from this port to New York within the last few weeks, caused by their inability to purchase at this point a cargo of cotton of the proper kind for the Barcelona market.

THE BOOK TRADE.

1.—*Memorials of Thomas Hood.* Collected, Arranged, and Edited by his Daughter, with a Preface and Notes by his Son. Illustrated with copies from his own sketches. 2 vols., 12mo., pp. 310, 327. Boston: Ticknor & Fields.

Lovers of poetry will ever treasure in memory "The Song of the Shirt," and the gentle heart and open hand that sketched it. A friend to the suffering, to the careworn, and the needy; to the victims of cruel greed, and to all that are desolate and oppressed—Hood, the generous, kind, and true. Of all the fragments ever written, there have been none more popular than this. At the time of its first publication it was the talk of the day, and has since been translated into French and German, printed on cotton pocket-handkerchiefs for sale, and parodied times without number. These memorials, now presented to the public by his children, consist principally of his letters, with explanations, amplifications, and anecdotes of his every-day life. The volumes are also illustrated by sketches, and two fac similies, one being a sheet containing the "Song of the Shirt" as it was first written out, and the other a sketch of his own monument drawn just before death. Authorship has long been known as a hand-to-mouth business, and among the many who have set up in it and achieved eminence—those bright geniuses whose lines have fallen in pleasant places and become immortal—few have escaped from the hands of the reviewers, in appraising the particulars as to the birth, parentage, education, life, character, and behavior with little short of those grave charges of improvidence, want of principle, and offences against morality and religion we see daily brought against literary character. How much of truth or falsehood is usually involved in these, we are not prepared to say; but we have never so much as heard a syllable against he whose memorials fill these pages. That the life of Thomas Hood was not closed in regret and dire uncertainty, the following stanzas, the last lines of poetry ever written by him, will suffice:—

"Farewell life! my senses swim;
And the world is growing dim;
Thronging shadows cloud the light
Like the advent of the night—
Colder, colder, colder still,
Upward steals a vapor chill;
Strong the earthy odor grows,
I smell the mould above the rose?

Welcome life! The spirit strives!
Strength returns, and hope revives;
Cloudy fears and shapes forlorn
Fly like shadows at the morn;
O'er the earth there comes a bloom,
Sunny light from sullen gloom,
Warm perfume for vapors cold;
I smell the rose above the mould."

2.—*History, Theory, and Practice of the Electric Telegraph.* By George B. Prescott. 12mo., pp. 468. Boston: Ticknor & Fields.

This handsome volume, as its title indicates, is devoted to the history and description of the several systems of telegraphy which are or have been made use of in this country, including as well descriptions of the systems in use in Europe, with the most approved theories of the savans of Europe and our own country, upon the various phenomena connected with electricity, and cannot but prove both interesting and valuable to operators and others connected with the manipulations of the telegraph.

3.—*A Run Through Europe.* By ERASTUS C. BENEDICT. 12mo., pp. 552. New York: D. Appleton & Co.

This, so the title designates, comprises the record of a hasty vacation tour made by the author through England, Scotland, Ireland, Germany, France, and Italy, including also the Gothic and Sclavic peoples of southern, eastern, and central Europe. Whatever may be said of the profusion of books of this kind, comprising "ground made dusty by the footsteps of many generations of travelers," Mr. Benedict has this advantage over many of his *comfreres*, in being a careful observer and graphic narrator. He knows apparently what to see, and how to see it, and in what manner to set forth the results of his observations—desiderata possessed but by few of the many who go abroad and come back with enlarged views, and minds opened to a much larger horizon after having helped to feed the current over the great highways of travel—possessed of that *cacoethes scribendi*, which though not always profitable, has the tendency of letting much of the gas out of our conceit, and hyperbole out of our vanity.

4.—*Course of Ancient Geography.* Arranged with special reference to convenience of recitation. By H. J. SCHMIDT, D.D., Professor in Columbia College, author of "History of Education," "A Treatise on the Eucharist," etc. 12mo., pp. 317. New York: D. Appleton & Co.

This little work, designed for the recitation room of our higher grade of institutions, constitutes what may be properly termed classical geography, or that portion which the student needs in his classical reading. The interest which attaches to the geography of the ancient world arises not only from the historical, but perhaps still more from the mythological, legendary, and literary associations connected with different regions and localities. These, therefore, fill up much the larger space of the volume. In order to obtain the object had in view —that of furnishing a text-book arranged with special reference to convenience of recitation—the matter has been broken up into short paragraphs, which are all numbered; and questions referring to these, and marked by corresponding numbers, are given in the lower margin. This arrangement will greatly facilitate the acqusition of the lessons by the pupils, as well as contribute much to the saving of time in recitation.

5.—*A New Practical and Easy Method of Learning the Spanish Language*, after the system of F. AHN. Doctor of Philosophy and Professor at the College of Neuss. First American edition, revised and enlarged. 11mo., pp. 149. New York: D. Appleton & Co.

6.—*A Course of Exercises in all parts of French Syntax*, methodically aranged after POITEVIN'S "Syntaxe Francaise," to which are added Appendices, designed for the use of Academies, Colleges, and Private Learners. By FREDERICK T. WINKELMANN, A. M., Professor of Latin, French, and German in the Packer Collegiate Institute of Brooklyn, N. Y. 12mo., pp. 366. New York: D. Appleton & Co.

7.—*Virgil's Æneid*; with Explanatory Notes. By HENRY S. FRIEZE, Professor of Latin in the State University of Michigan. 12mo., pp. 594. New York: D. Appleton & Co.

HUNT'S

MERCHANTS' MAGAZINE.

Established July, 1839, by Freeman Hunt.

VOLUME XLIII. OCTOBER, 1860. NUMBER IV.

CONTENTS OF NO. IV., VOL. XLIII.

ARTICLES.

ART. PAGE

I. WHEAT TRADE—FOREIGN DEMAND 403

II. NEW YORK BAY—ENCROACHMENTS 414

III. VALUATION OF LIFE INSURANCE POLICIES. No. VI. By Prof. C. F. McCAY, of Georgia 426

IV. NAVAL ARCHITECTURE—WAVE LINE 430

V. THE VALLEYS OF THE ST. LAWRENCE AND MISSISSIPPI. Vertical Topography, and Climatology of the Valleys of the St. Lawrence, the Ohio, and Mississippi, with the average Fall of Rain per annum—the effect of Rain, with the Tropical Trade Winds, in producing Wheat, and particularly Indian Corn, on our Prairies, as compared with the Canadas—the several producing regions of the United States, dependent on each other—the importance of Railways from our Seaboad to our Grain Prairies. By JOSEPH E. BLOOMFIELD, of New York 437

VI. PINE FORESTS OF GEORGIA 445

JOURNAL OF MERCANTILE LAW.

Imitation of Trade Marks—Similar Firm Name—Continuance of Firm Name by Strangers—Assignment of Right to a Trade Mark 450

Unpaid Purchase Money Due on Articles of Agreement 453

COMMERCIAL CHRONICLE AND REVIEW.

Great Prospects—Markets Abroad—Crops—No Eagerness to Purchase—Exports more Free—Export of Surplus gives better Price for Home Sales—Ability of the West to Pay—Good Crops and Sales are Money—Bank Sophistries—The State of the West—Freights—Tonnage—Railroads—Grain—The South—Cotton—Corn—New York and New Orleans—Value of Cotton Crop—The Markets of Europe—Free Corn and Free Ships in France—Rise in Freights to Liverpool—Rise in Stocks—Higher value for Ships—Securities—Agriculture—Money Rates of—Decline—New Loans—Sterling Bills—Small Demand—Export of Specie—Gold Dollars—Assay-Office—United States Mint—New Orleans Mint—Gold for Europe 454-462

PAGE

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

Boston Valuation.—Bank of the State of Indiana 463
Banks of Wisconsin.—The Clearing-house 464
City Weekly Bank Returns—Banks of New York, Boston, Philadelphia, New Orleans, Pittsburg, St. Louis, Providence 465
The Failures in the Leather Trade 468
Finances of the Sandwich Islands.—Banking in New South Wales 470
Bank of France 471
Portsmouth.—New York Assay-office 472
Finances of Europe and America.—Savings Banks of New Hampshire 473
Austrian Finances.—Chilian Mint—New Mines 474
Ohio Valuation.—Banks of Illinois.—Banks of Missouri.—Brooklyn Finances 475

STATISTICS OF TRADE AND COMMERCE.

Trade of the Northwest 476
Lake Vessels on the Ocean.—Commerce of New Orleans 477
Commerce of Mobile.—Trade of the Sandwich Islands 480
Spain—Its Trade and Agriculture 481
Export of Breadstuffs from the United States to Great Britain and Ireland 482

JOURNAL OF INSURANCE.

Connecticut Insurance Law 483
Fire Insurance Dividends 484

NAUTICAL INTELLIGENCE.

Minot's Ledge, Entrance to Boston Bay.—The Anvil Rock, Cape Point 485
Discontinuance of a Lighthouse 485
Marine Losses.—Loss on Western Waters 486

COMMERCIAL REGULATIONS.

Rates of Storage and Labor 487

POSTAL DEPARTMENT.

Progress of the Electric Telegraph 492
Atmospheric Telegraph 493

JOURNAL OF MINING, MANUFACTURES, AND ART.

British Factory Operatives 494
Manufacture of Semi-Steel 496
Things we send Abroad.—Origin of Iron Bridges 498
Manufacturing in Ohio 499

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

Freights from the West 500
Railways of East India 501
The Railroads of New York 503
Memphis and Charleston Railroad 504
Wear of Rails.—Locomotives in France 505

STATISTICS OF AGRICULTURE, &c.

Cotton Crop of the United States 506
Wheat: Its History and its Culture 509
The Productions of Iowa for 1860 512
Agricultural Fairs for 1860 513

STATISTICS OF POPULATION, &c.

Population of China 514
Increased Wear and Tear of the Brain in Modern Life 515
Population of Alexandria 516
Russian Aggression and Extension.—A New Emigration 517

MERCANTILE MISCELLANIES.

Commerce of New York 518
Profitable Investments 519
Nebraska City and the West 520
Philosophy of Expenditure 521
Dead Men's Shoes 522
Silks and Servant Girls.—The Preservation of Milk 523
The Test of Respectability 524
The Key West Negroes.—Monuments of Human Labor 525
Frauds in Trade.—Industry in Jamaica.—Weight of Various Articles of Produce 526

THE BOOK TRADE.

Notices of new Books or new Editions 527–528

HUNT'S

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

OCTOBER, 1860.

Art. I.—WHEAT TRADE—FOREIGN DEMAND.

The accounts that reach us from Europe indicate that a very considerable demand for breadstuffs may spring up before the close of the harvest year now just opened. The crops of France and England are represented as in great jeopardy from the continued rain that already had done much damage, and large orders for grain are said to have been sent to America and the Black Sea. One thing is to be kept in mind, however, in reading English accounts in relation to the harvests: it is that the actual and probable wants are always systematically exaggerated; for the reason that the greater the supplies that can be induced to direct themselves towards England the more chance have they to get cheap food at the expense of the growers. Alarm and exaggeration are employed to lower the prices of grain. The enormous revulsion and failures of 1847–8 are still fresh in the public mind. Prices rose on false reports until the price had reached 120s. in June. It was then discovered that the supplies were abundant, and a rapid fall involved hundreds of failures. The extent of the present probable wants is not to be judged of from clamor. In relation to the harvests of France, a significant fact is that an imperial decree had been issued at the close of August opening the French ports for the admission, duty free, of all kinds of foreign grain and flour, irrespective of flag. Vessels with breadstuffs will be exempt from tonnage dues. The government has the means of being well informed, and this movement, after the restoration of the sliding scale dating one year since, has a practical appearance.

The potatoes are represented as showing more disastrous signs than in any year since the famine of 1847. It is to be borne in mind, however, that the dependence upon the potato is not now anything like so general as it then was. The multitudes of people who in Ireland then subsisted only upon the products of their little patches, and were possessed of no capital to purchase a substitute when that crop failed, have disappeared by migration and starvation, and a better class of cultivators have more

diversified means of dependence. The general growth of the countries of Great Britain and France require more food, not only in the proportion of greater actual numbers, but in the increase of food consumers in proportion to food producers. The last census of France shows a great concentration in the cities at the expense of the provinces, and even in these last the manufacturing population increases at the expense of the agriculturists. It is also the case that the general wealth of the people has improved. Thus three prominent causes conspire to create a larger demand for food:—1st, greater numbers; 2d, greater relative town and city population; 3d, more means to purchase food. This has been the direction of events since the last famine of 1847, under the spur of gold discoveries and speculation. The production of food has no doubt been accelerated in some degree, but owing to the improved means of transportation, and the events which have opened broader sources of supply in the Black Sea and Egypt, the prices have not been maintained at rates which encourage the grower. If we were to adopt Adam Smith's standard of prices, and scan that of wheat since the gold discoveries, we should not detect any fall in the value of gold. On the other hand, the figures would indicate a rise in its value, since food has been, on a whole, cheaper. Hence the grower of grain has been less encouraged than the food consumers. The reason is no doubt that, as we have intimated, the means of transportation by rail and boats have been such as to equalize the grain production of all Europe, in something the same manner that the railroads and canals of the United States, by cheapening transportation, equalize the prices of grain between the valleys of the Hudson, the Ohio, and the Mississippi. The long, expensive, and tedious progress of wheat from the interior of Poland and the Danube provinces is now comparatively changed for cheap and prompt delivery. More grain has thus been brought into the service of Western Europe, and the rates there received relatively less. This fact has been doubtless one cause of the growth of French cities, since the rude systems of agriculture there pursued could not stand this influx, causing distressed agriculturists to seek the cities and factories for support. It is also the case that the French trade in grain fluctuates more than any other. This is apparent in the following table:—

IMPORT AND EXPORT OF WHEAT INTO AND FROM FRANCE AND THE UNITED STATES, AND IMPORT OF WHEAT AND WHEAT FLOUR INTO GREAT BRITAIN.

	Great Britain.		France.		United States.	
	Imports.		Imports.	Exports.	Exports.	
Years.	Flour. Cwt.	Wheat. Bush.	Wheat. Bush.	Wheat. Bush.	Wheat. Bush.	Flour. Bbls.
1846.....	3,198,876	11,460,728	16,624,422	3,467,833	1,618,795	2,289,476
1847.....	6,329,058	21,251,232	28,754,658	4,154,427	4,399,951	4,382,496
1848.....	1,765,475	20,752,104	4,494,199	3,576,546	2,084,704	2,119,083
1849.....	3,349,830	32,763,024	1,364,217	5,002,152	1,527,534	2,108,013
1850.....	3,855,059	30,036,745	2,772,081	6,919,398	608,661	1,385,448
1851.....	5,314,414	40,496,072	2,003,943	6,327,735	1,026,725	2,202,335
1852.....	3,889,583	25,551,136	4,126,640	4,014,107	2,694,540	2,799,339
1853.....	4,646,400	35,595,512	10,103,107	2,101,206	3,890,141	2,920,918
1854.....	3,646,505	26,448,816	18,972,988	1,053,132	8,086,665	4,022,386
1855.....	1,904,224	21,842,608	12,165,022	822,256	798,844	1,204,540
1856.....	3,970,100	32,582,664	28,769,782	572,168	8,154,877	3,510,626
1857.....	2,178,148	27,503,656	15,865,574	1,344,063	14,570,331	3,712,053
1858.....	3,860,764	37,175,471	8,927,380	19,336,320	8,926,196	3,512,169
1859.....	3,330,770	32,008,298	4,425,244	28,278,601	3,002,016	2,431,828
1860, 6 mos.	1,429,536	11,155,556	.....	.....	8,000,000	3,000,000

In these returns it is to be considered that the year in Great Britain and France ends December 31, and in the United States, June 30.

The year of the largest import of flour into Great Britain was 1847; but in 1851 the aggregate of wheat, in flour and grain, reached the maximum. The quantities of corn and other grain imported into Great Britain have varied considerably. In 1847 the quantity was 7,448,107 qrs., or 59,584,856 bushels. Of that quantity one-third came from the United States. The quantity required has never been so large since. France was a large importer of wheat in those years—'46 and '47. The demand of those two countries upon the rest of the world was, it appears, 99,849,272 bushels—a quantity nearly equal to the whole crops of the United States. The States of Belgium and Holland were also short, and while all the navigation laws were suspended to give perfect freedom for the transportation of grain, and some national vessels were used to transport it, the prices of freight rose immensely. Flour to Liverpool, from New York, paid $2 per bbl., and grain 50 cents per bushel. While these enormous supplies were required, and prices that rose at one time to 120s. per quarter were paid, the United States supplied but a very unimportant proportion of the whole amount—that is to say, about 44,000,000 bushels. From 1848 to 1852 France was an exporter of wheat. The demand upon the markets of the world was thereby diminished, and the supply increased. The crop of 1852 again failed in France, and from that date, through the Russian war, she was again a large importer. In the four years ending with 1857 she bought 85,800,000 bushels of wheat, and England bought 184,000,000 in the same time, or together, 269,800,000 bushels, of which the United States supplied 67,700,000 bushels, or 25 per cent. In all that period, in the United States the consumption of food was very active, because the building of railroads was pursued to an extent that absorbed $600,000,000 of capital; land speculations were rife; 2,000,000 emigrants arrived in the country, and great numbers moved from East to West on the new lands that were to be soon covered with the growing railroads. These causes produced such a demand for food at the door of the growers as to leave but little surplus to send East, and the quantities that did go abroad could be spared only at very high prices. We have in those causes a reason that the United States, a peculiarly agricultural country, have not yet taken their rank as a supplier of food for Europe. In the years of large demand heretofore the means of transportation did not exist. In the last three years, when the means did exist, the demand was slack. The moment has now apparently arrived when the demand is to take place in face of the most extensive means of meeting it. The Western crops are represented as so large as to give rise to fears that it may be overdone, and that the demand, great as it may be from Europe, will not suffice to raise prices, in face of such overwhelming supplies, to a level that will pay for the distant transportation. In other words, that the demand will be met before the most remote States can get their supplies to hand.

If we look back to the famine of 1847, we find that the Erie Canal and the lines of roads that now form the New York Central were the only through communications to the lakes. They were the only means of freight transportation, and the law did not allow the railroad to carry freight until 1850. The basin of the great lakes was fed only by the Ohio canals at Toledo and Cleveland. The Indiana—which canal did

not operate—the Illinois Canal was not then available, and there were no railroads to drain the produce of the interior to the ports. The great rivers carried down supplies to New Orleans, and food found its way abroad thence. The lakes were supplied with a very moderate amount of sail tonnage, and the expense of transportation from Chicago to New York was very great.

The great famine demand began in 1846. At the close of July, in that year, the price of flour in New York was $4, and the rate rose steadily until it reached $9 12 per barrel. The course of the New York market was, monthly, as follows:—

EXPORTS OF BREADSTUFFS FROM NEW YORK IN 1846-7, WITH THE PRICE OF FLOUR AND FREIGHTS TO LIVERPOOL AT THE CLOSE OF EACH MONTH.

	Exports.				Freights.	
1846.	Flour, bbls.	Wheat, bush.	Corn, bush.	Flour per bbl.	Flour, bbl. s. d.	Gr'n bu d.
August	77,586	99,664	7,231	4 00	2 3	8
September	86,895	151,765	117,949	5 00	3 0	10
October	163,967	222,380	195,182	5 94	3 6	12
November	115,161	303,121	367,350	5 37	4 9	15
December	232,894	276,758	245,791	5 62	5 0	16
January, 1847	157,357	160,186	510,622	6 50	7 8	22
February	132,213	149,217	814,922	7 06	8 6	28
March	77,819	82,789	1,188,240	7 12	7 6	25
April	100,061	57,759	1,052,042	7 12	3 0	10
May	111,700	66,282	471,917	9 12	2 6	10
June	342,080	899,877	1,408,508	7 25	3 6	11
July	420,812	1,305,986	2,332,535	5 50	4 6	10½
August	224,172	322,140	516,221	5 62	2 6	8
Total	2,242,667	4,007,929	9,034,138			

The quantities received at tide-water during this period, viz., from July 31, 1846, to August 1, 1847, were as follows:—

Flour	bbls.	3,685,387
Wheat	bush.	4,489,285
Corn		4,257,640

The highest freights were obtained in February, when the cotton shipments were most pressing, and just at the opening of canal navigation. The Erie Canal then being almost the only channel of transportation from the West, and it was so overburdened with business that it cost $1 25 to transport a barrel of flour from Buffalo to Albany. The supplies from New Orleans at New York were not much increased, because large quantities went thence direct to Great Britain and France, as follows:—

EXPORTS FROM NEW ORLEANS, 1847.

		Great Britain.	France.
Flour	bbls.	671,335	314,477
Wheat	bush.	818,770	304,358
Corn		5,186,330	4,190

The Erie Canal and the Mississippi River were in that year the only outlets for the produce of the West. It followed that, although the European demand raised prices high in New York and New Orleans, yet the cost of transportation absorbed so large an amount of the proceeds, that the producer did not benefit to that degree which would have stimulated large production, although it did not fail to send forward every disposable bushel.

If we now look at the production of the Union we shall observe what proportion was taken off by that active trade.

There are no returns of the amount of crops for that year; but if we assume that they were as large as for the census returns, we may compare the exports with the production:—

	PRODUCE PER CENSUS.		
	1840.	1850.	Exported 1847.
Wheat .....bush.	84,823,272	100,485,944	26,322,431
Corn	377,531,875	592,071,104	16,326,050

Thus, over 26,000,000 bushels of wheat were exported as flour and grain, and that export raised flour to $9 12 per barrel. Of corn only 16,326,050 bushels were exported; but that small quantity only—not 3 per cent of the crop—raised the price to 90 cents per bushel, and the freight to 28 s., or 56 cents from New York to Liverpool in February, 1847. The total tonnage of the United States in that year was 1,241,313 registered, and 1,597,733 coasting, Of the latter, 147,883 was owned at the lake ports, and 84,731 at the river ports—there being then no railroad transportation. The production of grain in 1847 was probably by no means so large as the figures given for the census of 1850, since the high price obtained in those famine years not only stimulated production, but also ship building. These two circumstances caused low prices of grain and of freights in the succeeding years. It then appears that one of the most extraordinary famines of modern times could only draw from the United States 42,000,000 bushels of corn and wheat.

The high freights greatly stimulated the building of vessels—as well registered as coasting and lake tonnage—and the returns show that the latter increased 50 per cent, and the building of registered was in as large a ratio. The trade of 1847 was strangled for want of means of transportation. These had increased very much up to 1853. In the five years from 1847 to 1853 the government sold 12,000,000 acres of public lands, and 1,500,000 settlers arrived from abroad, while great numbers moved from the Eastern States to the West. In the same period the Northern line of railroads was opened; the New York Central allowed to carry freight; the Erie was opened through, and the connection between Baltimore and Philadelphia and the West completed. In 1847 the Ohio Canal at Cleveland was the only work which fed the lakes, and these delivered 644,913 barrels of flour in that year. Before 1853 the Indiana Canal was opened; the two great Michigan roads were opened, and the Illinois canal was completed, drawing grain to Chicago, in connection with one or two railroads. The tonnage of the lakes had become large, and the tonnage of the whole country had increased from 2,417,000 in 1847, to 4,138,440 in 1852, or 45 per cent. Such was the state of affairs when the harvests of Europe again failed in 1852. The lake tonnage had increased to 271,100, and the river tonnage to 169,000.

In this state of affairs the harvests of Europe again failed—not the potato crop so much as the grain crop—and there was again much excitement, and we may trace its influence upon the markets. It is now just seven years since the English harvests promised the same as they now do. At that time the present writer had occasion to describe the state of the markets as follows, after carefully condensing the news:—

"Many weeks since we laid before our readers the leading circumstan-

ces that were conspiring to make the coming year one of the most important eras in the corn trade. Unfortunately the weather in England and Western Europe has been such as to heighten the worst features of the case, and support large estimates of the probable wants of the West of Europe, including England. The government of France has exerted itself to keep down prices; but the general rise in France of 14½ cents per bushel, together with the suspension of the corn duties in France, Belgium, Holland and Italy, has sent the English and French buyers in competition into this market. Leading English firms, although impressed with the idea that the demand is to some extent speculative and premature, have sent orders for choice flour, limited at 25s., laid down in Liverpool. According to present estimates the wants are:—

Of France.....bush.	38,781,165
Of England.....	128,000,000
Total, all kinds of grain.....	166,781,161

"In usual years England wants half this quantity, or 64,000,000 bushels, of which France supplies usually 30,000,000, making the two countries dependent upon the rest of Europe for 34,000,000 bushels; hence they require, together, 132,000,000 bushels more than usual; and Holland, Belgium, Italy, and Egypt are short. These general facts are calculated to excite the minds of holders extravagantly, and cause loss and disaster by inducing them to hold for exorbitant prices. The lesson of former years showed that first sellers did best."

Bearing in mind what we had said of the exaggeration of the English reports, it will be obvious that the estimated wants were three times what was actually imported, and France imported about one-fourth of the estimates.

Such was the state of affairs in 1853, and the description will answer pretty well for the present prospect. In July, 1853, the price of flour in New York was $4 50, when the demand set in, and the effects of it on the New York market are seen in the following table, which shows the weekly price in New York of flour, wheat, and corn, the quantities weekly exported to Great Britain, with the freights of flour to Liverpool:—

EXPORTS BREADSTUFFS FROM NEW YORK TO GREAT BRITAIN IN 1853.

	Flour.			Wheat.		Corn.	
Weeks.	Price.	Export. Bbls.	Freight. s. d.	Price.	Export. Bush.	Price. Cents.	Export. Bush.
July 9.....	$4 50	25,718	1 9	$1 20	103,126	64	9,463
" 16.....	4 87	53,403	2 3	1 28	138,197	67	....
" 23.....	4 87	37,041	2 6	1 27	156,809	69	....
" 30.....	4 87	34,413	2 6	1 26	199,386	71	....
Aug. 6.....	5 25	18,260	2 6	1 33	128,004	77	....
" 13.....	5 12	10,393	2 9	1 31	75,682	73	....
" 20.....	5 06	26,486	2 9	1 31	92,257	74	....
" 27.....	5 18	30,417	2 9	1 27	108,178	74	....
Sept. 3.....	5 75	17,129	2 6	1 34	81,392	76	....
" 10.....	6 44	45,883	2 9	1 41	123,019	81	2,200
" 17.	6 18	9,558	2 10	1 43	97,015	84	....
" 24.....	6 25	11,965	2 6	1 43	305,623	81	12,100
Oct. 1.....	6 87	9,396	2 6	1 46	198,646	81	....
" 8.....	6 67	11,257	4 0	1 52	200,364	85	....
" 15.....	6 81	13,963	4 0	1 57	152,789	85	....
" 22.....	6 50	11,498	4 0	1 50	248,191	76	....
" 29.....	6 44	14,386	3 9	1 53	189,883	76	1,000

	Flour.			Wheat.		Corn.	
	Price.	Export. Bbls.	Freight. s. d.	Price.	Export. Bush.	Price. Cents.	Export. Bush.
Nov. 5.....	7 00	26,993	3 6	1 72	270,521	78	21,628
" 12.....	7 06	33,232	3 9	1 72	268,048	80	14,256
" 19.....	6 87	70,391	3 6	1 72	320,964	80	48,224
" 26.....	6 94	55,038	3 6	1 72	271,113	80	21,519
Total to G. B..		466,865			3,724,104		130,450
" elsewhere		585,801			1,023,580		36,028
Total export..		1,052,666			4,747,684		166,478
	EXPORTS TO ALL PLACES.						
Dec. 3.....	6 94	83,618	3 6	1 68	309,289	80	20,001
" 10.....	6 81	68,039	3 9	1 68	322,379	80	172,107
" 17.....	6 87	72,363	3 0	1 68	141,162	81	64,942
" 24.....	7 12	73,745	2 6	1 74	333,182	80	11,861
" 31.....	7 68	66,774	3 9	1 85	229,647	80	126,990
Jan. 7.....	7 56	63,493	3 9	1 85	152,688	83	42,751
" 14.....	7 75	46,161	3 6	1 85	183,304	89	95,025
" 21.....	8 06	40,688	3 6	2 00	106,656	92	127,300
" 28.....	9 18	36,455	4 0	2 50	66,985	108	80,225
Feb. 4..... ...	8 87	12,851	3 6	2 25	64,009	98	38,626
" 11.....	9 12	43,671	4 0	2 05	116,994	103	60,022
" 18.....	8 87	25,624	3 9	2 15	36,825	101	172,274
" 25.....	8 31	20,933	4 6	2 00	36,794	93	126,092
Mar. 4.....	7 87	25,226	4 6	1 90	25,767	86	196,358
" 11.....	7 94	13,804	4 3	1 90	71,078	83	154,430
" 18.....	7 25	18,864	4 6	1 85	65,488	79	16,352
" 25.....	7 87	27,467	4 0	1 85	45,501	81	96,063
April 1.....	7 62	16,309	3 9	1 80	46,364	78	134,332
Total.....		1,808,951			7,121,712		1,901,179

The above table gives the weekly export to Great Britain up to the close of November, and the aggregate to all places. From December to April the total weekly exports to all places are given. It happened in 1853, as in 1847, that the exports of corn grew as the year advanced. In 1847 they were largest in July, and in 1853 they were largest in February. The wheat export was heaviest in December. It is to be remarked that in England the prices of grain were highest in June, 1847, when the rate for wheat was 120s. The situation was fictitious, however, and a sudden breakdown involved the failure of hundreds of merchants. In 1853 the price of flour rose steadily, and corn, with very moderate exports, rose to 108c. per bushel in New York in January, notwithstanding the improved means of communicating with the West. The increase in registered tonnage sufficed to keep outward freights at a moderate level, but the quantities of corn exported were very limited as compared with 1847. The actual exports of the two years were as follows:—

	Flour, bbls.	Wheat, bush.	Corn, bush.	Tonnage.
1847.....	4,382,496	4,899,951	16,326,050	2,417,000
1853.....	2,920,918	4,854,403	2,274,909	4,138,441

This was not a very large result, particularly for wheat, yet the price of that article was well maintained at very high rates. The prices abroad continued very high up to 1858, but the harvest of 1854 failed in the United States, and little grain could be spared even at the high prices paid abroad for it. The manufacture of railroads at the West also consumed a great deal of food, and less could in consequence be spared.

The revulsion of 1857 turned food consumers into food producers—a greater breadth of land has been planted and made more accessible to market. The federal government has sold nearly 50,000,000 acres of land since 1853, and nearly 2,000,000 emigrants from abroad have arrived. Many of these have gone West, and others have settled as manufacturers in the Eastern States in place of native agriculturists who have gone West.

The Canadians have cleared the St. Lawrence of its obstructions, and opened it to the Chicago grain-laden vessels free to the sea. The Ogdensburg Railroad is a northern drain from the lakes to Boston, as the Montreal road is to Portland. The New York Central road is fully equipped to compete with the Erie Canal, which has also been enlarged. The Erie Railroad has been "put through," and a considerable length of double track built. The Pennsylvania road forms a cheap and direct route from Pittsburg to the Delaware, and the Baltimore and Ohio road connects Wheeling with Baltimore. All these routes form eight avenues of great capacity to deliver freight. At the same time, the whole tract of country bounded on the west by the Mississippi, on the south by the Ohio, and on the north by the great lakes, has been covered by a perfect net-work of railroads, which bring every farm in communication with either of these markets.

There have been built 12,000 miles of railroads in the Western and Northwestern States. The intermediate country is drained and crossed in every direction by these works, which, in competition with the rivers and canals, make every bushel of grain available, and equalize the prices. The canals, rivers, and roads empty themselves upon the lakes and Ohio and Mississippi rivers, and the tonnage of those waters is now 427,000 on the lakes, and 172,000 on the rivers. The river and lake tonnage was gradually changed in its character from sail to paddles, and from paddles to screws. The latter have also become gradually improved, and now supersede other means of motion on the lakes. The effect of moving by steam is greatly to increase the capacity of a given amount of tonnage, since the voyages are more prompt and shorter. The effect of this in the past few years, when the foreign demand has been so small for grain, has been to send down freights to their lowest points, and cause many vessels to leave the lakes in order to seek freights in the sea-going ports. The railroads have also taken a considerable portion of the freights, and thus still farther depressed the shipping business. A great change is now apparent. The large breadth of country now covered with settlers, and brought within range of the markets, has given the most prolific yield, and if the reports are not exaggerated there must be 1,000 millions of bushels of corn to come to market. The quantities of this that may be exported will not hold a very large proportion to the whole amount. The Southern crops are represented as a failure in many sections. From that cause will arise a considerable consumption of Western corn; but the surplus will still be such as that the utmost foreign demand will be freely met.

The trade in Indian corn may be said to have commenced in 1847. The sudden failure of the potato crop, at a time when other food was scarce, made corn almost the only alternative; but the strongest prejudices prevailed in the minds of the people against it, and they were, moreover, ignorant of the mode of using it. The greatest exertions were

then made to overcome these prejudices. The clergy exerted themselves to entreat hand mills to grind it, giving instruction also, by precept and example, how to cook the meal. It was found in many cases to have a very bad effect upon the people, who were unaccustomed to it, causing them to swell as if poisoned; nevertheless, a considerable increase in its use resulted, and in England, other articles being used as human food, corn was extensively introduced as fodder, and the export to the British islands has since been very regular. The following table, from official sources, shows the quantities of corn exported to the British islands, and the total quantity, with the average price per bushel, and the total value:

INDIAN CORN EXPORTED FROM THE UNITED STATES.

Years.	England, bush.	Scotland, bush.	Ireland, bush.	Total, bush.	Per bush. cents.	Value.
1845	134,898	.....	790	840,184	49	$411,741
1846	688,714	78,006	425,960	1,826,068	62	1,186,668
1847	7,216,878	310,708	7,998,939	16,326,050	90	14,395,212
1848	3,365,392	126,907	1,569,921	5,817,634	66	3,837,483
1849	7,859,642	345,316	4,191,284	13,257,309	60	7,966,369
1850	4,431,929	172,782	1,342,545	6,595,092	59	3,892,193
1851	2,226,647	38,940	494,742	3,426,811	52	1,762,549
1852	1,337,651	89,566	517,483	2,627,075	59	1,540,225
1853	1,324,625	18,960	310,255	2,274,909	60	1,374,077
1854	5,488,979	122,033	354,838	7,768,816	77	6,070,277
1855	4,744,745	152,640	1,037,899	7,807,585	89	6,961,511
1856	6,704,105	159,732	828,748	10,292,280	75	7,622,565
1857	4,184,279	160,704	426,223	7,505,318	69	5,184,666
1858	2,716,695	90,226	408,277	4,766,145	70	3,259,039
1859	345,187	.....	.....	345,187	70	221,500
1860	2,286,555	.....	.....	2,600,000	65	1,690,000

This has been the actual extent of the corn trade of the Union, and as compared with the production it is of small account. Indian corn is almost the sole instrument of settling the Western country. It is this sure and abundant crop which, with little labor, gives the pioneer of the wilderness fodder for horses, cattle, and swine, food for the family, materials for bedding, and surplus for sale. Depending on corn the settler pushes fearlessly into the wilderness, certain that a few months' growth of corn will give subsistence for a year for man and beast, and if he can command a market, the means of getting luxuries. Railroads have given him command of the markets for wheat and flour, but in ordinary times the corn is too bulky to pay railroad freights, and goes upon the canals, rivers, and lakes. Indeed, even for flour many prefer the water carriage, because of the wastage upon railroads. The number of acres sold, and the new settlers that occupy them, have brought an immense quantity of land under corn. The crops here are said, however, never to have been so large as now, and the means of transport never so abundant. In fact, both railroads and shipping have been depressed by over-supply, and they can now meet the exigencies of a very extensive export trade. The quantity and value of corn produced in the United States has been given in official tables as follows:—

	Bushels.	Value.
1840, census report.....	377,531,875	$139,749,612
1850 "	592,071,104	296,035,552
1855.....	717,812,540	358,101,000
1857, estimated.....	1,200,000,000	600,000,000
1860 "	1,350,000,000	650,000,000

By the census of 1850 more than half the corn was produced in the Southern States. That is to say, over 300,000,000 bushels were produced there, and the remainder mostly West. It is now the case that the Southern crop is mostly cut off by drouth, and that section will have to purchase largely. The crops there may not average more than half that of 1850, or 150,000,000 bushels. At the West, on the other hand, the production has been immense, from a much larger breadth of land and greater number of people, aided by the newly-invented machines. Under these circumstances the crops of that region are estimated at four times as much as that of 1850, or 1,200,000,000 bushels, which, with the Southern crop, will give 1,350,000,000 bushels of corn. The weight of the Western crop would be 38,400,000 tons. If 10 per cent of it is available for export it will give 120,000,000 bushels, weighing 3,840,000 tons of freight, and worth $96,000,000. Of the surplus crop there will be required, possibly, 60,000,000 bushels for Southern consumption, if the damage done to the crop is there anything like what is feared. That corn must descend the rivers by every mode of conveyance. There has been something like a panic at the South in relation to corn, and offers of responsible parties have been made to supply any quantity at 90 cents. Even if this should be the case, the surplus left for export will meet any reasonable demand.

The production of wheat in the United States cannot be easily ascertained. The figures were given by the census of 1840 and by that of 1850, and estimates have been made from time to time since, but these are merely vague estimates, and do not appear to be entitled to much confidence. The only mode in which an approximation to the facts may be made, is to adopt the figures of the census, and by taking the known quantities exported, allow for seed the usual quantity, and the remainder is the amount consumed. The following table is compiled on this data:

Years.	Population.	Consumption of wheat at 5½ bushels.	Actual exports.	Seed.	Crop.	Price in N. York.
1840.....	17,069,656	59,743,796	11,198,098	8,482,727	84,827,272	$5 44
1850.....	23,267,726	81,437,041	8,827,017	11,500,000	104,479,923	5 62
1851.....	24,250,000	84,875,000	12,948,490	12,500,000	110,323,490	6 68
1852.....	24,500,000	85,750,000	18,600,680	13,000,000	120,000,000	4 37
1853.....	25,000,000	87,500,000	18,958,990	13,500,000	122,000,000	4 94
1854.....	25,750,000	89,125,000	28,148,595	14,000,000	130,000,000	9 25
1855. ...	26,500,000	92,750,000	7,821,548	14,000,000	100,571,548	9 50
1856.....	27,400,000	95,900,000	25,708,007	14,500,000	136,108,100	7 52
1857.....	28,500,000	99,750,000	33,130,596	15,000,000	147,880,596	6 50
1858.....	29,500,000	100,825,000	20,487,031	15,500,000	142,312,031	5 25
1859.....	30,400,000	106,400,000	15,161,156	15,000,000	148,560,156	5 12
1860.....	31,300,000	109,550,000	23,000,000	18,000,000	.....	5 25

In this table of the crop of 1839, 11,198,098 bushels were exported, and nearly nine million bushels were used for seed in 1840, leaving a remainder which gave three-and-a-half bushels per head of the whole population for consumption. And as this took place at the normal price of $5 44, it may be supposed the quantity about sufficed for the usual wants. The production of 1849, after the great spur given to production by the prices of the famine years, gave about the same results—three-and-a-half bushels per head, at $5 62 per barrel for flour. The production of 1850 was consumed in the year 1851, and following the increase of the population, which is that of the Treasury estimates, it did suffice to

admit of the same rate of consumption, and allow of 12,948,490 bushels to be exported, with a rise of price to $6 68. In the following year the crop was so much larger that it allowed 18,600,680 bushels to be exported, after feeding the people, and their remained still a surplus which caused prices to fall $2 per barrel. The crop of 1853 was large, but the European demand set in when it was coming to market, and 28,148,595 bushels were exported early in the year. This was found to be far more than could be spared, since prices rose rapidly, and remained at over $9 through that and the succeeding year. The crop of 1854 was quite short. Notwithstanding the very high prices abroad only 7,821,548 bushels could be exported, and prices were maintained at $9 50. These high prices stimulated production, and the crop of 1856 sufficed to admit of the usual consumption, and allow 33,130,596 bushels to be exported, while the price fell to $6 50. Since that year the prices have continued at about $5 25, a rate which has not paid very well to cultivate. The subsidence of the speculations at the West since 1857 has greatly diminished the consumption of food. The number of travelers, speculators, emigrants, and road builders, has been greatly reduced, and caused far less local consumption; while the crop of 1859 has been abundant for the wants of the home consumers, and to allow of a steady export, without much change in prices. The exports from July 17th to September 1st have been, from New York to Great Britain and Ireland, as follows:—

	Flour, bbls.	Wheat, bush.	Corn, bush.	Prices. Flour.	Wheat.	Corn.
To July 17.....	465,000	2,545,297	1,634,000	$5 25	$1 45	61
July to Sept. 1st..	203,000	2,392,000	156,000	5 75	1 35	64
Total.....	668,000	4,937,297	1,790,000			

These figures indicate that the supply has been sufficient. The stock at the West, with the new crop coming in, will afford abundant supplies to meet the export demand, which is likely to be steady and without speculative action, thus allowing the whole surplus to pass out of the country, as it did in the year 1853. It is obvious that it is not the interest of the grower, under such circumstances, to hold. The exports of 1853 are an example. The table given shows that, of the whole quantity exported up to April 1st from New York, 7,121,712 bushels and 1,808,951 barrels, more than two-thirds, went before December, at gradually rising prices. The result proved that more was sent out of the country than could have been well spared, and consequently that the whole home trade paid very high prices. The exports of wheat for the year ending June, 1854, were, it appears, 28,148,595 bushels from the whole country, out of a crop of 122,000,000. It resulted that the stocks were exhausted, and the price remained at over $9 for two years. By exporting the surplus at comparatively low figures, the farmers obtained very high prices from the whole home market. The sales of the wheat and corn this year are likely to remove a considerable surplus, since the mistake was committed in 1858 of refusing to sell unless the high figures of 1857 could be obtained, and as a consequence no doubt much old wheat accumulated.

Art. II.—NEW YORK BAY—ENCROACHMENTS.

The advisory council of the Coast Survey has received from the Superintendent a map, prepared, under his direction, by A. Boschke, Esq., comparing the shore lines and hydrography of New York bay and harbor, and the approaches, as shown in the surveys of 1835–36 and of 1855–56 by officers of the Coast Survey. On this map they make report of great interest to the mercantile community.

This comparative map has been prepared with great care and ability by Mr. Boschke, and shows in a conspicuous manner the changes which have taken place within the last twenty years in the harbor and its dependencies.

Mr. Boschke calculated that, between the Hudson and East rivers alone, 1,220 acres of land have been made, upon which, formerly, the tide rose more than four-and-a-half feet, removing thus a tidal space of nearly nine millions of cubic yards from this part of the harbor.

To this encroachment is to be added the space occupied by piers and slips, amounting to 519 acres, since the tidal currents are so checked between the piers as to lose nearly their whole scouring action. The piers alone displace about 312,000 cubic yards. It is, of course, to be considered that these encroachments are made upon a port of great capacity, and that they represent but a small fraction of the total area of even this portion of the harbor. If made according to a systematic plan which would have considered all the circumstances of the problem, they would by no means have produced injurious consequences, but the contrary.

The importance of these changes to the welfare of New York, as a great emporium of commerce, needs no enforcement from us. They should be watched carefully, be faithfully chronicled, and be attentively studied.

It is not sufficient to know the changes and their extent. The causes which have produced them must be ascertained. In this way alone can they be regulated and controlled. Thus only can injurious changes be prevented, and favorable ones be assisted. It by no means follows that, because a partial change in a particular direction is favorable, that if this be continued indefinitely it will still be advantageous. For example: a diminution in the water-span of a harbor, by increasing the velocity of the current, may deepen the harbor, and thus a first encroachment may appear to be advantageous. Continue this, and the velocity of the current becomes excessive; navigation is impeded by it; the bed of the harbor is torn up in one place to be deposited in another; the capacity of the harbor is contracted injuriously. Again: the contraction of the entrance to the harbor may act, at first, favorably by increasing the rate of flow of water over the bar, and thus increasing its channels; but this contraction, if continued, may so alter the direction of the currents as to destroy the first favorable effect, and may even be carried so far as to obliterate, by its encroachments, some of the principal channels.

It will be seen, in the course of our remarks, that an increase in the velocity of currents and changes in their direction have, in many cases, produced favorable results, and that even the advance of Sandy Hook into the main ship channel may, up to this time, have been advantage-

ous, while, if encroachments in the same direction were continued beyond certain limits, the destruction of the harbor might ensue.

It will be further seen that the *physical survey* of the harbor and approaches, which we have heretofore recommended in strong terms to the commissioners, is absolutely essential to furnish materials for the study of the diverse and complicated phenomena which the harbor presents. We have the basis of this in the present topographical and hydrographic surveys of the Coast Survey; but we need very elaborate observations on the tides and currents, and on the movement of the sand and other materials constituting the bottom of the harbor, before we can satisfactorily trace the causes of all the effects which the comparative map brings to light. We have an example of what is desired in the satisfactory results obtained from the observations on the growth of Sandy Hook, and a case in which the minuteness of the facts enables us to draw very safe conclusions.

We cannot too strongly or too often urge upon the commissioners the necessity for knowing whence the materials of the bar are derived, and how they are brought to their present places; why they are deposited as we find them, and why they change their places according to laws, which are obvious on a casual inspection of the comparative map, and are confirmed by a close study of its details.

In following out the important changes which have taken place in the harbor, we have been greatly assisted by the able report of Mr. Boschke, before referred to, and refer to it as our test for most of the numerical results, for many of the facts, and for some of the deductions which we present.

We begin with the changes at the entrance of New York Bay, and, first, with those of the land on the south side, namely, at Sandy Hook; second, with those on the north side, at Coney Island and the shore of Long Island to the eastward as far as Rockaway Beach; and next proceed to the changes of the bar itself, outer and inner, and the channels and shoals into which it is divided.

Upon the depths of the channels of this bar depends the commercial prosperity of New York.

CHANGES AT SANDY HOOK.

The lighthouse, which is now more than a mile from the point of Sandy Hook, was built near to that point. Maps of nearly a century ago show it as about one-third of a mile from the end of the Hook. The point both advances and recedes, but, upon the whole, grows to the northward, jutting out more and more into the main ship channel. Its rate of growth, on the average, for the last century, has been about one-sixteenth of a mile in twelve years. In the main ship channel, where, at the time of Captain Gedney's survey, there was 120 feet of water, there is now but 21 feet. Large areas, over which twenty years ago there was from 20 to 40 feet of water, are now dry ground. Within twenty years the point has grown to the northward 220 yards, narrowing the main ship channel, and changing in a degree the direction of both ebb and flood currents at this part of the entrance.

Various causes were assigned for this growth; and minute observations of the tides and currents were made by the Coast Survey, under the immediate direction of the Superintendent, by Sub-Assistant Henry Mitchell,

under authority of the commissioners, to test the different suppositions, and to collect such a body of facts as would lead undoubtedly to the full solution of the problem.

The observations have shown that on both sides of Sandy Hook, the outer or ocean side, and the inner side of Sandy Hook Bay, there prevails during the ebb and flood tides northwardly currents, varying in strength at different times and at different distances from the shore, but tending to carry the sand on both the outer and inner shores to the northward. On the outside, in False Hook Channel, this current prevails for seven hours out of the twelve, being strongest in mid-channel, and the weakest on the shore of the Hook and on the False Hook Shoal. On the inside the northwardly current prevails for eleven hours out of the twelve. At the meeting of these currents their motion is lost, and the sand which they transported is deposited. The comparative chart by the form of the curves of 6 and 12 feet depth off the point of the Hook shows this in a very perspicuous manner.

It is easy to see from the principles of the motion of fluids how these currents exist while the tidal currents are flowing in and out of the entrance to the bay. On the ebb the outside current is an eddy current, having nearly the opposite direction to the general tidal current issuing from the bay. Inside both ebb and flood draw the water from Sandy Hook Bay by the western shore of the Hook, which is thus worn away.

The northwardly current outside has not only carried the materials of the New Jersey coast northward, but it has diminished very much the area of the shoals known as the False Hook and Outer Middle Ground; has deepened the bar at the southern end of False Hook Channel from 21 to 22 feet; has, according to Mr. Boschke, deepened the channel by about one foot and a half; and has removed the bulkhead, which, in 1836, closed the northern end of False Hook Channel, giving 30 feet of water where there was twenty years ago but 13 feet. Eighteen feet can now be safely carried through this channel at mean low water. The projecting shoals formed just north of what was in 1836 an inlet, about a mile north of the old Shrewsbury Inlet, have also considerably diminished. Shrewsbury Inlet, which, in 1835, was about 1,100 yards north of the Ocean House, and through which six feet could be carried at low water, and the wider but shoaler entrance just referred to above, are now entirely obliterated.

Seeing in these northwardly currents the power which transports the sand to the point of the Hook, we have the obvious remedy afforded by jetties, at suitable intervals and of proper lengths and directions, for stopping the progress of the material. These constructions have of late years been so much studied by engineers that most of the circumstances attending them have been ascertained, and it will be easy, whenever the growth of Sandy Hook ought to be arrested, to do so by simple and comparatively inexpensive means.

Mr. Boschke estimates that in twenty years a million and a half cubic yards of sand have been removed from this channel; that about a million cubic yards of sand have been transported from the Outer Middle and False Hook shoals, of which half a million have been re-deposited at the northern end, increasing it as is shown upon the comparative map. Thus two millions of cubic yards of sand have been transported towards the point of Sandy Hook, the main ship channel, and the southern part

of the bar from this locality alone, bounded on one side by Sandy Hook shore, and on the other by the outside of the Outer Middle and False Hook shoals.

Does not this show the absolute necessity of the most minute observations of currents, extending not only over these localities, but further out from the land? Do not these facts argue that continued watchfulness is necessary in regard to these changes, and that no labor and no reasonable expense should be spared to keep them constantly under observation? The average depth of the main ship channel has changed but little. The western part has shoaled, but a deep hole has been excavated due north from the east beacon. On the whole, Mr. Boschke reports that but ninety-five thousand cubic yards of sand have been deposited in this channel. The growth of the Hook has added about two millions and a half cubic yards to this encroachment, representing, with the quantity just stated, more than the excavation from False Hook Channel. The wear from the inside of the Hook is estimated at about one hundred thousand cubic yards within the last twenty years. The wearing of the bluffs must not be confounded with the wearing of the shore, for the sand which is thus removed is deposited on the shore and on spits, causing an actual increase of the Hook. From these facts it is probable that the sand from False Hook Channel does not at once reach the bar. The importance of knowing positively where the bar derives its supply of sand is obvious; since in that knowledge is involved the question whether this supply can be so cut off or diminished as to cause a deepening on the bar by natural means; and whether, if dredging were applied and the source of supply of the sand cut off, the improvement of the bar would be possible. This question of the deepening of the bar has, in the progress of commerce, in the change in the burden of ocean steamers and sailing vessels, derived new importance, and it is altogether probable that future progress will render it a vital question.

NORTHERN SIDE OF ENTRANCE, CONEY ISLAND AND SOUTH SHORE OF LONG ISLAND.

The western part of Coney Island has made to the westward since 1855. The eighteen, twelve, and six feet curves of depth are now more than eighty yards further to the westward than they were twenty years ago. Rockaway Inlet, which drains Jamaica Bay, has passed, according to Mr. Boschke, 620 yards to the westward since 1836; and Duck Bar Island, which then was mainly on the eastern side of the entrance, is now on the western side. The shore of Barren Island to the west of Rockaway Inlet has lost, according to Mr. Boschke's calculations, nearly a square mile of area, and the destruction would have been greater had not the woods upon the beach checked it. Hog Inlet has shifted nearly a mile in the same time. We thus see a great westwardly movement of the sand along the south shore of Long Island perfectly established. It remains for such an examination as was made at Sandy Hook to explain the causes of these changes and their probable future progress, and thus to put us in possession of the means of controlling them.

Near the western end of Coney Island there is a tendency to form a channel close to the land, which is the correlative of False Hook Channel at Sandy Hook. This channel has not altered much in its general features since 1836, having moved, however, somewhat to the northward.

Great changes have taken place in the bar of Rockaway Inlet, its depth having decreased from fourteen to twelve feet, and the direction of the entrance over it having changed to the southward and eastward, which is unfavorable. The point of the western six feet shoal has advanced southward and eastward nearly three-quarters of a mile; and that of the eastern side has receded nearly as much. The general curves of six, twelve, and eighteen feet along this shore to the west of Rockaway Inlet seem to show that its influence does not extend more than two miles and three-quarters, there being little or no change in those curves at that distance; but this point is too important to rely upon indirect observations to establish it. It would seem that the accumulation of sand at Rockaway Inlet, and the projection of its shoals and bar further into the sea, may have stopped a portion of the supply of sand from the coast of Long Island to the New York bar. We want at every step direct observations of the tides and currents along this shore to enlighten us as to the causes of the changes which are determined.

If the supply of sand to any part of the great bar is derived from this shore of Long Island, how desirable must it not be to know it positively, and to be in possession of all the particulars of the movement?

NEW YORK BAR.

In the old maps the bar was represented by a large bank called East Bank, the main ship channel skirting its western edge, and then turning along the southern side to the ocean.

In fact, across New York entrance below Sandy Hook and Coney Island lies an extensive bank, "intersected by five channels, giving thus alternately a shoal, a channel, a shoal, a channel, and so on." The main ship channel is next north of Sandy Hook, its direction is due east, and its width 1,050 yards, the passages from it through the outer bar are by Gedney's Channel with 23½ feet, and by the south channel with 23 feet, at mean low water. North of this, and separating it from the Swash Channel, is Flynn's Knoll, (the southwestern part of which is known as the S. W. spit,) covering an area, within the eighteen feet curve of depth, of 852 acres. Northeast of Flynn's Knoll lies the Swash Channel, the general direction of which is S. E. by S., gently curving from its upper entrance so as to pass more eastwardly; its average width is 900 yards, and through it 21 feet can be carried at mean low water.

Though the main ship channel has the best water, the Swash, from its superior directness, is the favorite channel into New York. Northwest of the Swash Channel is the Romer Shoal, the area of which is 2,080 acres. Northeast of the Romer Shoal is the eastern channel, 750 yards in width, running S. E. for half its length, then E., and passing over the outer bar with 19 feet water, a remarkable slue running nearly due south, connecting this with Gedney's Channel. Next, to the northeast, is the Middle Ground Shoal, covering 1,548 acres. Next, the Fourteen-feet Channel, running to the S. E., and closed by a wide bar with 14½ feet upon it. Then the extensive East Bank, covering 3,063 acres. Finally, the slue close to the Long Island shore, having a bulkhead at its western end, near the point of Coney Island, and a bar at its eastern end. This entire bank, through which the channels are cut, is of sand, similar to that of the beaches of New Jersey and Long Island, the river deposits taking place higher up in the bay.

The directions of these channels and shoals show, in a general way, the directions of the forces of the water acting at this entrance. The tidal currents of ebb, reinforced by the affluents of New York and Raritan bays, displace the sand which the flood deposits, and the channels thus measure, in a general way, the forces of these affluents. A thorough investigation of the forces requires nothing less than the complete physical survey which we have recommended. Time would be wasted for purposes of navigation upon such a survey, but when it comes to those of improvement, nothing less than a physical survey will answer. A few thousand dollars thus expended, by determining the minute actions of the tides and currents and their causes, may save hundreds of thousands in expensive tentative works of improvement. These observations could hardly fail to show where natural actions were to be aided or restrained, and when art might profitably come to their aid, or must be used to control, modify, or change them.

While we consider that we are not yet justified in speculating upon the causes which have produced the peculiarities of these shoals and channels, and have led to their changes within the last twenty years, these changes are so clearly marked upon the map that we can be at no loss to discover their direction and magnitude. It is observed that, in general, there has been a movement to the northward and eastward of all the channels and shoals. Flynn's Knoll has been carried to the northward and westward.

From the elaborate computations of Mr. Boschke, it appears that in twenty years Flynn's Knoll has been carried 240 feet to N. W. by W.; Romer Shoals 920 feet to the N. E.; the Middle Ground 270 feet to the N. E.; and East Bank 2,840 feet to the N. E. What portion of the movement is due to the extension of Sandy Hook, and what portion to other causes, acting in the lower and upper bay, we do not undertake to say, not having sufficient data for this purpose.

While this movement has gone on, the channels have generally increased in depth, and the shoals have diminished in extent. The main ship channel is the great exception to this rule among the channels, and the Middle Ground to that among the shoals. The enormous quantities of sand that have been shifted in position, and small portions of which have been again deposited inside of the outer bar, while the main bodies have been carried away into deep water, are shown in the interesting tables of Mr. Boschke.

These alterations, by the removal of sand, prove that changes have occurred in the force and direction of the tidal currents, in regard to the nature and extent of which only a complete physical survey can inform us, and that for the future.

That twenty years have sufficed to produce such changes is a fact surely sufficient to make us alive to the necessity of procuring at once the materials by comparison with which, five, ten, fifteen, or twenty years hence our successors may draw their conclusions.

From the channels the enormous amount of three millions of cubic yards is known to have been actually removed, or shifted in position, and in the shifting of the shoals fifty-four millions of cubic yards have been carried onward. While this has been going on, the main ship channel has had a deposit of sand in it of nearly one hundred thousand cubic yards, and the Middle Ground a deposit upon it of nearly a million of

cubic yards. The shoals within the eighteen feet curves have diminished in extent nearly fifteen per cent, or from nearly nine thousand to between seven and eight thousand acres. For these positions we refer to the tables of Mr. Boschke.

An inspection of the comparative map will show changes on the West Bank in harmony with those which we have noticed at length. Gravesend Bay has also changed very materially, the deposit in it being much increased.

It would lead us into too much detail to discuss thus elaborately the changes in other parts of the lower bay; the following, to which our attention has been directed by Mr. Boschke, will suffice, as bearing specially upon the navigation of the bay:—

1. The outer bar has become more uniform in its depth, as is shown by the section across it on the comparative map. Gedney's Channel has slightly improved. The north and south channels have coalesced, forming a better entrance than when they were separate. A few isolated spots or lumps, of seventeen-and-a-half and eighteen feet, occur, which possibly have for their nucleus portions of wrecks, or of the obstructions which were placed at the entrance by the British, during the revolutionary war, to prevent the entrance of the fleet of our allies, the French. We adopt the suggestion of Mr. Boschke that these should be removed by blasting or dredging, and that, in fact, a steam dredge should be kept at work on the bar during the time of ebb current, and in suitable weather, to promote the tendency to deepen which now seems to exist. Two lumps, the one north of Gedney's Channel, and 710 yards from the sailing line, with eighteen feet on it, and the other south 220 yards, with seventeen-and-a-half feet on it, should also be removed.

2. West of Flynn's Knoll a small lump of eighteen feet has formed, which should be removed. It does not interfere, however, with the main ship channel, on the range for which twenty-three feet can be carried.

3. The Swash Channel has widened and deepened; the bar at its southern entrance, which had only twenty feet upon it, has deepened to twenty-three feet. The eighteen feet lump which lies inside of the channel should be removed.

In consequence of the changes in position of the Swash Channel, the ranges require to be used by keeping the upper lighthouse open about twice its length to the northward of the lower, according to Captain Craven's sailing directions. This carries not less than twenty-one feet through the Swash at mean low water.

Lieutenant-Commanding Craven draws special attention, in his sailing directions, to the danger, when passing through the Swash, of being set on the Romer Shoal, especially at half ebb, when the tidal current sets strong towards the shoal.

4. The East Channel has improved, and the bar at its eastern entrance has diminished in width. Lieutenant-Commanding Craven calls attention to the danger, in passing through this channel on the flood, of being set upon the Romer, and on the ebb upon the East Bank.

5. The Fourteen-feet Channel has much improved; it is still, however, of relatively little value.

6. At the entrance to the Narrows, Lieutenant-Commanding Craven discovered, in his survey of 1855, a small shoal, marked as Craven's Shoal on the comparative map. Lines of soundings on the former map do not

run over this shoal, so that it is impossible now to say whether it existed in 1836, or has been formed since. It should be removed.

In closing this portion of our report, which relates to changes in the lower bay, we would call attention to the importance of the Narrows, as giving the velocity and direction to the waters of the ebb, upon the scouring action of which the depths on the bar depend. The sooner the commissioners' lines are established there the better. The shores being rocky, natural changes will not be likely to occur, but artificial ones might seriously injure the harbor. In connection with this, we would call attention to the great importance of the shore lines, recommended by us in a former report to the commissioners, from the Quarantine to Fort Tompkins, and from Owl's Head to Fort Lafayette. The present condition of the shore, as Mr. Boschke justly remarks, between the Quarantine and Fort Tompkins, is unfavorable from its many irregular projections.

NEW YORK UPPER BAY.

A general glance over the surface of the comparative map from north to south shows, by the portions left uncolored, the great body of the Hudson River flowing onward through the upper and lower bays, and passing by the underwater delta of the bar into the Atlantic.

The colored shoals on each side show that the expansion of the water, by checking its rate of motion, causes deposits of the silt, which it carries with it, forming extensive flats like those between Jersey City and Kill van Kull on the western side, or the Middle Ground and the flats of Gowanus Bay on the eastern.

The East River is, in fact, a mere arm of the sea, and which, as the tidal currents divide on this side of Throg's Neck, the ebb running to the east through Long Island Sound, and to the west through Hell Gate, may be regarded as a tidal stream heading at that point of division.

Its influence is readily seen, as its ebb passes out on either side of Governor's Island, sweeping through Buttermilk Channel, forming Yellow Hook and Owl's Head channels, and causing the deposit of a triangular shoal at the south side of Governor's Island and of the Middle Ground, as it comes in conflict with the main current from the northward. Buttermilk Channel, to which attention was first directed by the survey of Lieut. D. D. Porter, U. S. N., one of the assistants of the Coast Survey, is of increasing importance, and nothing which can by possibility lead to its obstruction should be permitted. The shoal towards its southeastern entrance, by the Atlantic Dock, seems to have at its point a rocky nucleus. The current of flood passes directly along the edge towards the entrance of the dock. It has undergone but little change since the date of the first survey. The shoal off the southern side of Governor's Island, on the contrary, has worn away considerably. Mr. Boschke estimates that the inner bay contains 14,629 acres, or nearly 23 square miles. Of this, the Narrows to New Brighton occupy one-fourth; the Jersey flats and the main ship channel, from New Brighton to the Battery, nearly one-third each; and the Middle Ground and Gowanus Bay nearly one-eighth. The Jersey flats contain 4,427 acres, the Middle Ground and Gowanus Bay, 2,020 acres, and the shoal south of Governor's Island, 83 acres.

The Jersey flats have increased in extent and diminished in depth within the last twenty years. The well-defined edge has grown out par-

ticularly near to Jersey City, pointing to the encroachments there as the cause of this change, and showing so clearly the connection of this line or border of the flats with the encroachments as to indicate for the future what must occur if they are extended. The material of these flats is of soft mud, supplied by the river from the upland and from the sewerage of the cities. There are rocky or stony patches scattered over the area, but these are exceptions. The mud extends to a considerable depth before firm bottom is reached. Between Ellis' Island and the canal basin, in Jersey City, the eighteen feet curve has advanced in twenty years some 230 yards. The computations of Mr. Boschke show that an average daily deposit of 1,550 cubic yards takes place on these flats. Gowanus Bay has in like manner shoaled from the same causes, increasing the area over which there is six feet and less of water by 177 acres. These spaces are, in fact, the expansions of the river bed, into which the waters, passing with diminished velocity, find places of deposit for the solid matter which the more rapid current above has carried off.

While these comparatively quiet spots have increased, the Middle Ground and the shoal south of Governor's Island have worn away. This is, in part, no doubt, due to the general increase of velocity in the currents by local encroachments, but, as the map shows, is also produced by the changes in the shore line below Castle Point, (Hoboken and Jersey City,) which have thrown the current more over on the eastern side of the bay.

This same increase of velocity in the tidal current has deepened the main ship channel generally, and especially at the mouth of Kill van Kull.

The small changes of velocity necessary to effect these and other similar changes could only be established by the most elaborate and refined observations on the tidal currents. Such results as are ample for purposes of navigation would fail to detect such small changes. The variations in the rate of the currents at different parts of the lunar month follow those of the tides from which they are derived, and must be connected with them by observation, or else marked out independently by such a long-continued series of observations as would deter the most indefatigable observer.

This entire matter would form part of the complete physical survey of the harbor, to which we have so often called your attention. The Coast Survey observations have shown, experimentally, the variation of the tidal currents with the well known tidal inequalities, called the half-monthly and the daily inequalities. This whole field should be explored in a way to put upon permanent record the most minute information for future guidance in reference to encroachments and to improvements.

An examination of the tidal registers, in the archives of the Coast Survey, does not show any change in the tidal establishment at Sandy Hook or at Governor's Island of sufficient amount to be adopted as a certain conclusion. Had the observations of twenty years ago been continued over periods as long as those more recently made, we might have been able to decide this question definitely. In fact, in important harbors like New York, tidal observations should be constantly kept up, the time of high and low water, as well as the height, being carefully ascertained. The Coast Survey self-registering gauges give these elements, and, besides, the law of the rise and fall of the tide.

NEWARK BAY.

This tidal reservoir, containing an area, according to Mr. Boschke, of about 6,000 acres, is supplied and drained through Kill van Kull into New York Bay, and through Arthur's Kill and Staten Island Sound into Raritan Bay. It receives at its head the waters of the Hackensack and Passaic rivers. The bay is an extensive flat, with two channels, of which the principal one leads into Kill van Kull. The average depth of the bay is about six feet at mean low water, and the bottom generally of soft mud. The shortness, depth, and breadth of Kill van Kull render it the principal outlet and inlet for Newark Bay, notwithstanding the sharp turn which the water is obliged to make as it passes from the bay into the kill. Arthur's Kill is longer, narrower, shoaler, and more crooked than Kill van Kull, and the bottom is quite irregular, the profile of the channel presenting shoals and pools alternately. The minute tidal and current observations in the kills have shown that the tides meet somewhere between Fallen Beacon and Elizabethport, and that the tidal currents meet over an area south and west of Shooter's Island. The drainage channel from one kill to the other, across the mud flat, which is most clearly shown on the map, has really not less than seven feet in it at mean low water, but is so narrow that no vessel of any size can keep in it and carry this depth.

Newark Bay has not altered generally in depth since the first survey. Kill van Kull has deepened, and Arthur's Kill has undergone changes of different kinds in different localities. In our former report we strongly urged uniform shore lines for these passages. When they have been adopted, there will be a tendency to greater uniformity of depth in Arthur's Kill, and dredging will be very effective. This would even now be quite useful, and would produce favorable changes in the flow of the tides, and in the amount of rise and fall at the upper end of Arthur's Kill. Dredging is the best resource for making a deeper passage between the two kills, and would necessarily be resorted to at intervals. It is an easy operation in such a locality and with such a bottom as here.

HUDSON RIVER.

We quote from Mr. Boschke's report:—"The average width of the lower section of the Hudson River is 1,300 yards. Its average depth is from 30 to 50 feet, the channel being on the New York side, and the New Jersey shore being bordered by a flat of an average width of 400 yards, upon which there is at most eighteen feet of water.

"The construction of the Hudson River Railroad has closed up the various little bays, and has given a more uniform shore line to the river, which has caused a general deepening and more uniformity of depth. The considerable encroachments between Thirtieth-street and Hammond-street have narrowed the river, and deepened it, on the average, six to ten feet in that locality, throwing, besides, the current over to the New Jersey shore. Below and above the projecting piers, and within the slips from about Thirtieth-street south, the ground shoals considerably, and, from the nature of things, dredging must necessarily be resorted to to give an increased depth. The extension of the piers on the New York side, and particularly near the Battery, has increased the eddy in front of the Battery, and therefore cause the extension of the shoal there."

These changes, which the map fully shows, enforce all that we have

heretofore said in regard to the danger of encroachments in this part of New York city front. We cannot too often repeat, that whatever changes the direction and velocity of the current, must change the regimen of the harbor for good or for evil.

EAST RIVER TO THROG'S NECK.

The value of Buttermilk Channel has been already referred to. Its eastern entrances are divided by a middle ground, one channel running close to Governor's Island, the other to the Brooklyn wharves. These channels should be most jealously guarded from obstruction. The middle ground has, according to the statement of Mr. Boschke, drawn from the map, increased in area within the eighteen feet curve by five-and-a-half acres since 1836, and a spot of eleven-and-a-half feet at mean low water has formed since the first survey. A considerable deposit has occurred on the north shore of Governor's Island. While the eastern branch of Buttermilk Channel has somewhat deepened, there has been an accumulation on and south of the shoal in front of the Atlantic Dock. We agree with Mr. Boschke in the judgment, that while the encroachments on the East River, between Corlaer's Hook and Fulton Ferry, have increased the rapidity of the current so as to tear up the bottom in many places, they have also thrown the current of ebb more on the New York side, so that the Brooklyn side depends chiefly upon the flood current for keeping up the depth between the Atlantic Dock and Fulton Ferry. There is a general deepening of the river from the Navy Yard to the western side of Kip's Bay, caused by the contraction of the stream until the point is reached, where the influence of Lowber's Bulkhead, between Seventeenth and Fourteenth streets, is felt. The shoal between Fourth and Eighth streets has increased, and the channel has less water than before the construction of the bulkhead. This is caused by the deflection of the water from Kip's Bay more directly to the opposite, or Williamsburg shore, by Lowber's Bulkhead—an inference which the deepening in the new direction of the current towards the opposite shore fully sustains.

The rocky character of the shore and bottom between the points just noticed and Hell Gate precludes much natural change. In the cove between 100th and 116th streets Mr. Boschke notices a slight deposit.

From Astoria to Throg's Neck great changes have been produced. In the general there has been a deepening of the deeper water, but sometimes a mere transfer of shoal spots and deep ones to other localities, and sometimes a decrease of depth. Mr. Boschke computes that the area of this part of the river is 6,200 acres, and that 15,000,000 of cubic yards have been removed from its channels and shoals, giving an average deepening of between one and two feet.

The influence of the tide of Long Island Sound disappears almost entirely at Pot Cove, between which and Throg's Neck the tide wave is compounded of that of Long Island Sound and of the East River. The area over which the currents meet lies near to Throg's Neck and west of it.

Direct observations are wanting to establish definitely what changes have taken place in the rise and fall of the tides, and in the currents over this space; but we can hardly suppose that, with the great changes in the East River, some alteration has not occurred in the general phenomena of the tides and tidal currents. The changes shown by the map, like those in the upper and lower bays of New York, correspond on the

average to an increased velocity of current, which is thus, as before, fully established by the indirect observations, and is in accordance with what the encroachments of the kind and degree already made upon the water-space would necessarily produce.

Some of the changes in this part of the river require especial notice; such, for example, as the decrease of the shoal on the eastern side of Riker's Island, where the six-feet shoal has, according to Mr. Boschke, lost 130 acres in area; the decrease of the eighteen-feet shoal of Flushing Bay by 35 acres; the deepening of the passages between Port Morris and North Brother Island, and between North and South Brother islands.

The shoals having six feet and less than six feet upon them, in the bays and coves, have generally increased in extent since 1836.

The main channel through this part of the river, from Throg's Point to Hell Gate, has nowhere less than thirty-seven feet of water at mean low water, affording the greatest encouragement to the removal of the dangers of Hell Gate from this eastern entrance to New York harbor.

The general changes in New York harbor, within the last twenty years, are thus shown to have been beneficial, while in special cases encroachments are found, conclusively, to have acted most injuriously upon particular localities, turning the channel away from the New York city side of the river, where natural causes had made it flow, increasing the velocity so as to wear the river-bed into hollows and contribute materials to shoals, and even, in some cases, to be injurious to navigation. While thus the general result is a favorable one, so many of the particular local results have been bad as to make it plain that a very different system should have been pursued in furnishing the facilities required by commerce on the water and on the land. The same good result, and a much better one, could have been obtained without such instances of evil had the shore-line been regulated years ago according to a systematic plan. The advisory council has not been opposed to such additions to the land as were required for present or future accommodation by wharves and docks; on the contrary, they have everywhere endeavored to provide such, where encroachments had not already been carried to the verge of imprudence, or beyond it, or had not been guided by erroneous principles, tending to produce injury to many while seeking individual benefit.

We have endeavored to trace such lines as would produce regular shores without abrupt changes of direction and width, to alter the proper directions of currents, or to increase or check their regular movement. The large traced map furnished to the commissioners, when spread upon a level surface, shows admirably the general harmony of the harbor lines which we have proposed. That we have not been unmindful of the wants of future commerce is proved by the fact that we have provided 1,840 acres of area for dock accommodation, according to the calculations of Mr. Boschke, made in reference to this matter. That we have not feared to recommend proper facilities for the riparian owners, within just limits, is proved by the fact that our lines contemplate the filling in of 2,480 acres of land now under water, amounting to some thirty-four millions of cubic yards. But this is done according to a systematic plan, which will avoid the dangers we have observed or have been able to foresee, and which will, as far as they have effect, favor those changes for the better which are now going on, and avoid injurious ones.

Art. III.—VALUATION OF LIFE INSURANCE POLICIES.

NUMBER VI.

For the true valuation of a life policy, a correct table of mortality is necessary. For this purpose we have in former articles brought together the rate of mortality in Sweden for 81 years, in Norway for ten, in the city of Carlisle for ten, in Northampton for seven, and in the Tontines and Annuities of Great Britain for more than fifty years. We propose now to add to these the results in England, Prussia, Saxony, and Hanover, reserving the experience of life insurance companies for a subsequent article.

The first table of Dr. Farr is founded on the mortality in England and Wales during the year 1841. The census of the living having been taken in that year, and the registered deaths being nearly an average for several years before and afterwards, the numbers are worthy of much confidence. The population amounted to 15,927,847, and the deaths to 343,847.

In constructing his table, Dr. Farr adjusted the irregularities in his observations, and corrected the "inaccuracies in his returns," by treating "the two series of numbers representing the mortality from 15 to 55 and 55 to 95, as geometrical progressions." In this way the decennial mortalities were made regular. The logarithms of the probabilities of living a year for each intermediate age were then interpolated by the method of differences.

These two mathematical artifices are very ingenious, and no doubt give close approximations to the true mortality at every period of life. They are not precisely in accordance with the laws of Mr. Gomperz or of Mr. Edwards, to which laws the Doctor refers with approbation in his report, but are more nearly correct than either of those laws would give. Since, however, they modify the observations considerably, (as much as ten to fifteen per cent in some of the quinquennial periods,) and are founded on an assumed law extending over forty years of life, we have thought it best to reconstruct the table, and give one corresponding exactly to the observations. For this purpose we have taken the living and the dying for each decade, and interpolated them by the method of differences, and thence obtained the ratio, and then the mortality for every age from 15 to 100. So far the results will agree precisely with the observations. We have then adjusted the rates of mortality, by supposing the law of geometrical progression to extend for each five years, from 15 to 20, from 16 to 21, from 17 to 22, &c., to the end of the table—this being the same law which Dr. Farr extended to forty years. For the short periods proposed, it is entirely free from objection.

In column second, at the end of this article, is inserted the rate of mortality from Dr. Farr's table, the rates being adjusted by the method of geometrical averages. This produces no effect scarcely, except near the age of 55, which was the dividing point with Dr. Farr of two separate laws of mortality above and below that age. The adjustment, therefore, merely smooths over the breach of continuity at that period, and harmonizes the whole table.

In column third is to be found Dr. Farr's rates for males only, adjusted

as before. As the vast majority of persons insured are males, we have thought it best to use this table, as well as the table for persons, in forming the combination we propose.

In column fourth is the reconstructed table before described. By comparing it with Dr. Farr's, it will be seen, that though lower at 15, and higher at 19, it agrees at 17; that from 20 to 30 it is higher, and from 30 to 50 lower; that for the next ten years it rises above Farr's, but again declines for the following ten; that from 70 to 80 it is higher in the first part of the decade, and lower in the second part; and that for the rest of the table, both are nearly coincident. The differences are everywhere small, at no age reaching ten per cent, and for the most part not exceeding five. The one table corresponds with the observations, the other with a mathematical law closely approximating to the observations. Both are sufficiently regular and harmonious, and both deserve much weight in the combination proposed.

In the ninth volume of the registrar's reports, for Great Britain, Dr. Farr has published the living and the dying for the seven years from 1838 to 1844, and from these, by interpolation of the numbers for each age, we have obtained column fifth below. This is a valuable table.

The tenth volume of the registrar's reports, contains Dr. Farr's table No. 2, which is founded on the deaths among the males for the seven years from 1838 to 1844. As males are the principal persons insured, and the mortality of the two sexes is slightly different, this table is more suited for the purposes of an insurance company, than if the whole population had been considered. When we consider the immense population on which this is based, the system and accuracy with which the registrations have been made, the care and labor with which the returns have been scrutinized to correct errors and omissions, the skill and scientific accuracy with which the table has been constructed, we will be ready to allow it a large weight in the combination we are about to make. The rate of mortality for this table is inserted in column sixth.

We have reconstructed this table, discarding all hypothesis, and making it conform exactly to the observation. The result is in column seventh below, and a comparison of it with the preceding, will show how closely Dr. Farr's assumed laws have corresponded with his observations.

In the seventeenth annual report of the British Registrar-General will be found the continuation of these English observations for ten years later, from 1845 to '54. As a second enumeration of the people had been taken in 1851, this element is more accurate than for the former period; and as the deaths are reported for ten years instead of seven, these observations are worthy of much confidence. A table has been constructed for the males for this period on the same principles as before, and is inserted in column eighth below. It gives a higher mortality than for the previous seven years, the difference being caused in part by the second and third appearance of cholera in Great Britain in 1849 and 1854. The average mortality for the ten years was 2.364 per cent, or 10 deaths in 423 living, while for the seven years before it was 2.270 per cent, or 10 in 441. As the cholera was not severe, and as a true table of mortality must include years of plague and famine as well as of health and prosperity, the value of the last table is not less than the first.

To these English tables we have added in column ninth the mortality for Saxony, founded on the official observations published by Dr. Farr, in

his sixth annual report. The deaths are for the ten years ending 1841, and amount to 495,666. The census of the people was taken four times in this period, and their near agreement at all ages at each of the four enumerations is evidence of the care and accuracy of the observations. From these we have obtained the average population for the ten years from 1832 to 1841, and then interpolated the living and the dying for each age, and then proceeded as before. The deaths are not always given for the same ages as the living, but this presents no difficulty in using the method of differences for interpolating—merely increasing the labor of obtaining the result. The mortality is harmonious for different ages. Under 45 it gives a less rate than in Great Britain, but afterwards the mortality increases rapidly, and is largely in excess over the English tables.

In column tenth is inserted the Prussian mortality, founded on Dr. Farr's report of the living and dying for the year 1841. The whole number of deaths is published for every year from 1816 to 1841, but for the several ages only for 1841. The total amounts show, however, that this was an average year. For the five years from 1836 to 1840 the deaths averaged 411,000, while for 1841 they were 415,256; the population having slightly increased in the interval, these number show that the mortality in 1841 was not above or below the mean. The ages of the males are not given for the same intervals as the females, nor are they given for separate decades after sixty. The difficulty of interpolating up to sixty was easily managed; but after sixty it was necessary to introduce some hypothesis as to the distribution of the people in each ten years from sixty to one hundred. The deaths are given for each decade, and we have used the law so often adverted to by Dr. Farr, that the rate of mortality doubles for each ten years after sixty, to obtain the living for each period. This gives harmonious and satisfactory results, and as the population is large—14,928,501—the resulting mortality deserves much confidence. It approaches more nearly to the English table than the one for Saxony does, both at the earlier and later periods of life; but still it approximates more closely to the Saxon than to the English, as might be expected from the similarity in the race and condition of the people.

In column eleventh is added a table for Hanover, founded on the official observations communicated to the English government, and published by the Registrar-General of Great Britain. The deaths are given for the ten years from 1830 to 1840, during which interval the census of the people was taken four times. As the population exceeds a million, and the deaths among adults alone amount to more than 200,000, the resulting table is of much value.

Age.	Farr's English, No. 1.	Farr's English. Males.	Farr's No. 1. Remade.	English, 1838-44. Male & fe.	Farr's, No. 2. Males.	Farr's, No. 2. Remade.	English, 1845–1854. Males.	Saxony, 1830 to 1840.	Prussia, for 1841.	Hanover, 1830 to 1840.
15	.0073	.0069	.0067	.0069	.0054	.0066	.0069	.0040	.0050	.0069
16	74	71	72	73	60	70	73	44	58	70
17	76	73	76	76	65	74	76	48	63	71
18	78	75	80	79	71	77	80	51	68	73
19	79	77	83	82	77	80	83	55	72	74
20	81	79	86	84	80	83	86	59	76	76
21	83	81	88	87	82	85	89	63	80	79
22	85	83	90	89	84	88	91	67	84	81
23	87	85	92	91	85	90	93	70	88	84
24	89	88	94	93	87	91	94	73	92	87

Age.	Farr's English, No. 1.	Farr's English. Males.	Farr's No. 1. Remade.	English. 1838–44. Male & fe.	Farr's, No. 2. Males.	Farr's, No. 2. Remade.	English, 1845–1854. Males.	Saxony, 1880 to 1840.	Prussia, for 1841.	Hanover, 1830 to 1840.
25	91	90	95	94	88	92	95	76	96	90
26	93	92	97	95	90	93	96	79	100	93
27	95	95	99	96	92	94	98	82	104	96
28	98	97	100	97	94	95	99	84	107	99
29	100	100	101	99	96	96	100	86	108	103
30	102	102	102	100	98	97	102	88	109	106
31	104	105	103	101	100	99	104	91	109	110
32	107	108	105	102	102	100	106	93	109	114
33	109	110	106	104	104	102	108	95	109	118
34	112	113	108	106	107	104	111	97	110	122
35	115	116	110	109	110	107	114	100	110	126
36	117	119	113	112	113	110	117	103	111	131
37	120	122	116	116	116	114	121	106	111	135
38	123	125	118	119	119	118	125	109	112	140
39	126	129	121	123	122	122	129	113	114	144
40	129	132	124	127	126	127	133	118	117	149
41	132	135	126	130	130	131	137	122	121	154
42	135	139	129	133	135	135	142	128	125	159
43	138	142	131	137	139	140	147	135	131	164
44	141	146	133	140	144	144	152	142	137	168
45	144	150	136	143	149	149	157	151	144	172
46	147	154	139	146	155	153	163	161	153	175
47	151	158	143	150	160	158	169	171	162	179
48	154	162	147	154	166	164	176	183	173	183
49	157	166	153	159	173	171	184	195	187	190
50	161	170	159	166	180	178	192	208	202	198
51	165	174	167	174	187	187	201	223	219	208
52	169	179	176	183	194	197	212	238	239	222
53	176	186	186	193	202	207	222	255	261	236
54	186	199	198	204	211	218	233	273	287	253
55	199	213	212	216	222	230	244	292	314	273
56	215	231	228	230	237	243	256	313	343	294
57	234	251	245	244	254	258	269	336	373	320
58	253	270	263	261	274	276	285	363	403	348
59	273	291	281	280	297	296	304	396	431	381
60	295	314	299	302	320	320	327	428	460	422
61	319	339	317	326	345	347	353	467	489	468
62	344	366	335	352	371	377	383	509	517	519
63	372	395	353	382	399	408	414	551	546	574
64	402	426	374	414	429	443	448	596	575	631
65	433	460	398	447	461	477	483	643	605	687
66	468	496	425	481	495	513	520	691	640	743
67	506	535	458	517	532	548	557	742	676	803
68	546	577	496	553	573	586	596	799	719	870
69	589	622	539	591	617	625	637	863	774	938
70	637	670	588	633	666	668	683	935	838	1013
71	686	722	642	677	717	718	734	1019	912	1093
72	740	778	700	725	773	772	792	1116	998	1184
73	799	838	765	781	833	833	858	1219	1094	1280
74	861	903	835	845	898	902	931	1334	1194	1384
75	929	972	911	919	966	977	1008	1461	1301	1488
76	1001	1046	995	1010	1040	1061	1094	1600	1424	1603
77	1079	1125	1087	1105	1119	1152	1187	1750	1561	1713
78	1162	1210	1178	1209	1204	1250	1289	1902	1687	1831
79	1251	1300	1268	1322	1295	1360	1405	2063	1811	1939
80	135	140	136	144	139	149	154	222	192	208
81	145	150	145	156	149	163	169	238	200	220
82	155	161	155	171	160	179	188	255	208	230
83	167	173	166	188	171	195	206	274	216	239
84	179	185	179	206	183	212	223	294	222	244
85	192	198	194	224	196	228	238	313	230	245
86	205	212	212	237	209	243	250	331	241	246

Age.	Farr's English, No. 1.	Farr's English, Males.	Farr's No. 1, Remade.	English 1838–44, Male & fe.	Farr's No. 2. Males.	Farr's No. 2, Remade.	English, 1845–1854. Males.	Saxony, 1880 to 1840.	Prussia, for 1841.	Hanover, 1880 to 1840.
87	220	226	232	248	222	252	258	346	256	247
88	235	241	251	254	236	263	264	361	278	248
89	251	257	270	256	250	270	271	373	306	251
90	267	274	282	257	265	274	278	386	332	254
91	285	291	293	260	281	278	285	399	354	259
92	302	309	302	263	297	282	292	419	375	265
93	322	328	311	266	314	286	300	442	391	272
94	341	348	325	270	331	291	312	461	402	279
95	361	368	337	287	348	321	334	480	414	287
96	381	389	355	316	366	354	364	500	431	299
97	403	410	377	375	384	421	432	522	479	321
98	424	431	432	473	402	502	502	537	513	342
99	448	453	517	666	421	667	667	571	667	400

Art. IV.—NAVAL ARCHITECTURE—WAVE LINE.

At a meeting of the Institution of Naval Architects, J. Scott Russell read a paper on the wave line theory, the material portions of which we lay before our readers:—

The only reluctance which the author felt on the subject arose from the feeling that a principle, which he observed nearly thirty years ago, and fully published in the transactions of the scientific societies as soon as it was verified, and which many of his brethren had done him the honor to exemplify in their works, could now be scarcely said to possess the interest of novelty. But, as their notices had been scattered over many places, and appeared at different times, and as no united or systematic account had ever yet been given of the wave principle, he had been assured that the meeting would listen to such an account with patience, and not without interest. He was proud, therefore, to lay before the Institution of Naval Architects the first connected exposition of the principle as complete and systematic as he could make it, and of its application to the formation of an exact scientific method of construction of ships, although conscious of the difficulty of reading it to an audience the best fitted in the world to approve the accuracy, or expose the deficiency of his work.

The question of least resistance, indeed the whole question of the free motion of disturbed water, when moved as it is moved by the passage of a ship, is one the difficulties of which the highest and most refined methods of mathematical research and prediction have been unable to surmount. Even as a matter of physical observation, of logical discussion, and of practical experiment merely, the author had found the motions of waves of water, produced by the disturbance of a ship, more difficult to understand thoroughly and clearly than any other subject of mechanical knowledge. And if hard to understand, it was much harder to explain. What becomes of the particles of water moved out of the way of a ship —where they go—how they get there—if they ever return to their old places—what force takes them away—what brings them back—if they do not come back, whence come those that replace them—how *they* come there, and how their place is in turn re-occupied?—all this requires minute observation of the phenomena before it can be understood.

The shape adopted for a sailing ship should be the easiest possible to drive ahead, and the hardest possible to drive to leeward—or a form offering the least possible resistance one way, and the greatest possible resistance another way. The problem of least possible resistance, and its compliment the problem of greatest possible resistance, must be solved at once before we can proceed with certain steps to construct a ship of which we shall be able to predict beforehand the exact performance. Accordingly, every great writer on the Science of Naval Architecture has attacked this problem; but in the most recent English treatise—by a distinguished and much-lamented member of the Royal School of Naval Architecture, Mr. Creuze—it is clearly laid down that it has remained unsolved.

The phrase, "solid form of least resistance," which has been so frequently employed by naval constructors, implies a pre-existing conviction that there is some form of solid body which, *when afloat*, (for the case of a submerged body is altogether a separate one,) would not be opposed by the water so much as any other form. This thought assumes a previous one, viz., that the water has some bias, law, tendency, or way of moving which forms part of its nature; in a word, some way of least resistance. We want to know what shape of ship will give water this motion, or induce water of itself to take this motion. We have, then, two questions to consider—the way of the ship, and the way of the water about the ship.

A simple method of approaching the problem is to ask how a ship may move through the water so as to waste no power by producing unnecessary movement in the water. The first inevitable motion of the water is one of very great amount. The moving power exerted upon a ship in motion has to excavate the water out of the entire way along which the ship moves. This is the minimum of the work to be done. A ship 36 feet broad and 15 feet deep, having a midship section of, say 540 square feet, in moving at the rate of 10 knots an hour, has to move out of its way 270 tons weight of water in each *second* of time. This consideration gives a first principle, viz., that the channel formed, and therefore the midship section of the ship, shall be as small as possible. The area of this section is, however, limited in practice by other conditions; further reduction must, therefore, be sought by other means. And, as the bow or entrance of the ship is most exposed to the action of the water, it may be asked how far the shape of this bow affects the resistance which the water offers to removal out of its place. A ship with a flat bow, square to the line of motion meets with a definite, ascertained resistance, which may be measured by the force which would raise the displaced water to a certain height—the height due to the speed of the ship—that is, the height through which a weight must fall to gain that speed. From this consideration we get the following relations:—

Speed of ship in feet per second	8	16	24	32
Heights corresponding in feet	1	4	9	16
Resistance to each square feet of section in pounds...	62½	252	662½	1008

These measures of resistance are the best established perhaps, both in theory and by experimet, of any facts in hydrodynamics. The author had, however, taken the trouble to verify them from 2 up to 12 miles per hour.

After referring to the experiments of the French academicians, and to those of the Society for the Promotion of Naval Architecture—which showed but little more than that a long sharp entrance goes more easily through the water than a bluff round one—the author thought it would be admitted that when he began his experiments in 1834, no definite form had anywhere been laid down as a practicable form of least resistance applicable to the construction of ships. His own first approximation to such a form was based on three considerations. 1st. That the form of least resistance should be such as to remove the particles of water far enough out of the way to let the midship section pass, and no further. 2d. That the ship, finding the particles at rest, shall leave them so in their new positions. 3d. That, the time in which their displacement is to be effected being given, the force applied to them should be a constant force, and the least possible. He next conceived it probable that a hollow water line, composed of two joining arcs of a parabola, taken from the vertex, with their convexities reversed, and their tangents in the line of, or parallel to, the keel, would give the required motions to the fluid particles; and, notwithstanding many apparently adverse considerations which occurred to the author on trying the experiment on a large scale, he found that it did impart such motions. While the straight bow and the convex bow struck light floating spheres with more or less violent and repeated shocks, and with consequent waste of power, the double-parabolic bow entered among such spheres without shock, and carried them outward so gradually that they never left the skin of the vessel until her midship section had passed beyond them, occasioning, as may be inferred, no waste of power whatever.

But, admitting that a hollow water line produced less waste of power than a straight or convex line, it remained to be seen whether the proper form of hollow line had yet been obtained. In prosecuting this inquiry, the author discovered a true theory on which to found the formation of the entrance of the ship. The phenomenon which helped him to construct that theory, from its close analogy to the phenomenon of a water particle moving freely near the surface of the water from one point of rest to another, was that first known as Hooke's experiments. A heavy ball is suspended by a thread from a fixed point, forming a pendulum free to move equally in every direction. It may be made to oscillate like a pendulum, first in one direction, and next in a direction at right angles to that; or it may have impulses in both of those directions imparted to it simultaneously, in which case it will oscillate in neither of the two directions, but will go round the circumference of a circle in which it will describe equal arcs in equal times. It will also go round from one point in the circumference to the opposite point in the same time in which it would have gone straight across if it had only one motion given to it. The author further found that the spaces through which the body is moved in this experiment in equal intervals of time correspond to the versed sines of the corresponding arcs.

In endeavoring to apply the principles involved in the foregoing experiment to the construction of the bow of a ship, the author divided the whole length of the entrance into a number of equal parts equal to the number in which he divided a circle. He also divided the half-breadth of the vessel into the same number of parts by means of perpendiculars from the extremities of equal arcs of a semi-circle. Then he drew a continuous curved line in such a way that its ordinates at right angles to the

keel should be equal to the versed sines of the circle on the half-breadth, or to the before-mentioned divisions. This is the curve of versed sines on which was founded the construction of the curve of entrance of a ship, or what the author has called "The True Wave Line."

After dwelling at some length upon the properties of this line, the author proceeded to remark that he had not thus far demonstrated, nor did he assume, that what held true of fluid particles would hold true of a mass of homogeneous fluid. He was prepared to find that water *might* refuse to obey the proposed water line. But, on the other hand, he considered the wave line bow to be perfectly adapted to the true nature of water in *free* motion, and this "free motion," he believed, for various reasons, really meant *wave motion.* These reasons—which were not adopted until the author had read all that Sir Isaac Newton, Laplace, Bernouilli, Lagrange, Cauchy, Poisson, Thomas Young, Whewell, and Lubbock had written on the mathematical relations of the forces concerned in wave motion—were mentioned at great length.

It was, therefore, in the belief that the wave bow, as before described, would give to the particles of water a movement analogous to the free movement of the wave itself when obeying its own nature, that the author proceeded with confidence in 1834, to build the vessel called the "Wave" with that form of bow. He believed it would be attended with the least resistance from the water, that it would produce least disturbance in the water, and that it would waste the least quantity of propelling power. The following are the resistances of the "Wave," as subsequently ascertained by experiment, compared with those of three other vessels of nearly the same size, and exactly the same weight, all built by builders of eminence—A, being the "Wave," and B, C, D, the other vessels, all of them being in the same trim for the same velocities:—

Speed in miles.	A.	B.	C.	D.
5.68	84	126	166	148
9.69	189.5	225	241	225

The author said his object was now to consider the nature of the motion imparted to water when disturbed by a vessel pushed through it by motive power of any kind. It was in the investigation of this subject that he had seen some of the most important principles that guide us as to the general proportions of ships, as well as their shape, with reference especially to velocity.

The first inquiries to be made were—what became of all the water which a ship removed out of her way? and how did it get out of the way? In prosecuting these inquiries the author had first employed a small trough or canal, a foot wide, a foot deep, and of considerable length, and began with a very simple experiment. He supported a small heap of water above the level of that in the trough by means of a partition at one end, and then withdrew the partition to see what the water would do, and found that it assumed a beautiful wave-form of its own, ran along the whole length of the channel to the end, and left the surface of the water over which it passed as still as it was before. Had the end of the trough been just level with the surface of the still water, the wave would have jumped over and left the whole of the water in the canal perfectly undisturbed. This phenomenon is now known as the "solitary wave of translation." This wave would travel to an almost incredible distance. The author had followed such a wave on horseback, and by other means,

for miles. It leaves a little of itself, however, along the whole surface over which it passes.

The next fact ascertained was that, whenever the bow of a ship is moved through the water a wave of this kind is produced, and this is the "traveling" or "carrier wave," which gets rid of all the water out of the canal which the vessel has to excavate. The ship feels no more of it, for it spreads itself in a thin film all along the surface of the water ahead of the vessel—not behind the vessel, nor on each side of it—with a far greater velocity than that of the vessel itself. After having made experiments on a small scale, the author took vessels on a large scale, had them dragged by horses, and in other ways, through the water, and by positive observations and measurement found that this was really what became of the water displaced by the bow of a boat. On one occasion he drew so large a number of boats along a canal in one direction on a certain day that the waves carried a great part of the water from one end of the canal to the other, and in the evening the water in the canal was found raised 18 inchés at one end and depressed to the same extent at the other. The velocity with which the traveling wave moved was found to depend entirely on the depth of the water.

At	3	feet deep	the wave travels	6	miles an hour.
"	5	"	"	8	"
"	7	"	"	10	"
"	10	"	"	12	"
"	15	"	"	15	"
"	20	"	"	18	"
"	30	"	"	20	"
"	40	"	"	25	"
"	50	"	"	30	"

In addition to a constant velocity this wave has a constant shape, a drawing of which was exhibited by the author. And a most extraordinary circumstance was that its form corresponded exactly with the form of bow which he had previously, and from altogether different considerations, constructed as the form of least resistance. Moreover, he found that what he had endeavored to do in constructing that form, viz., move the particles of water gradually out of the way from one position of rest to another, the traveling wave also did; for on closely observing the water in the experimental trough under the action of such a wave, he observed that it lifted every particle of water over which it passed out of one place forward into another place, and there left it perfectly at rest. In the traveling wave, therefore, as in ordinary waves, the particles of water composing it were continually being replaced by others, while the wave itself advanced without apparent change. The foregoing facts convinced the author that the form of bow which he had adopted, and which has since been called the "wave form," was analogous and conformable to the nature of water and of wave motion.

Like many others, the author at first thought that the stern of a vessel ought to be of the same form as the bow; but thought it proper to undertake a series of experiments with the view of ascertaining what happened when a hole in the water had to be filled up. Where did the water that filled it come from? And how did it come? He first found that the hollow made in the water had no tendency to travel with an independent velocity of its own, but moved just as fast, and only as fast, as the body which produced it. He then discovered that the currents

of water rushing into such a hollow, from different directions, met and produced a wave, which he called the "following wave," or the "refilling" or "replacing wave," and which always moved with the velocity of the ship, and had nothing to do with the depth of the water. The "following wave" also repeated itself, in an endless series astern of the vessel. The author explained that the nature of this wave required that the stern of the ship should be formed of cycloidal curves, and showed how this fact was applied in actual construction.

The author might be asked, (reverting to the wave at the bow,) what became of the water at the bow supposing he dragged the boat faster than the water could spread itself? The answer was, with only a moderate force at his disposal the boat could not be made to travel faster; but if he had force enough to compel it to go in spite of the water, the water would rise up and stand on both sides of the boat until the load had passed, and then fall down into the hole left behind it. In a shallow canal in Scotland, where the carrier wave traveled only seven miles an hour, he had compelled a boat to go ten miles, and he found that the water not only rose up, but lifted the boat with it, so that she drew less water than before, and actually went easier at ten miles an hour than at five. Had not railways come into fashion just at the time, the country would have been covered with little troughs, and people would have been riding on the tops of these waves in an easier and cheaper mode than by any other means then known.

After explaining the different results which are sometimes obtained at trials in the Thames, owing to the velocities of the traveling wave varying with the depths of the water, the author described the best means of observing the wave on rivers and other like places, and then proceeded to the application of some of the principles before laid down to practice. First, he said, it was a delightful circumstance that the wave principle did not meddle at all with the form of a ship's midship section, but left the conductor entirely free to adopt any form of section he pleased. Next, it did not tie him down to any proportion of depth to breadth. It was therefore a plastic thing, and could be applied to any general form of ship whatever. The third and most important proposition was, that the wave line prescribed the exact length of ship for every speed at which you wished a ship to go, and explains why a long ship is indispensable to speed. To go six miles an hour, your vessel must be at least 30 feet long; for eight miles an hour, 50 feet long; for 10 miles, 70 feet; for 12 miles, 100 feet; for 15, 150; for 18, 200; for 20, 300; for 25, 400; and for 30, 500. The author had himself tried to obtain higher velocities than these with shorter vessels; and he had got them, but at such a fearful waste of power that it was insanity and folly not to lengthen the vessels for the purpose. The wave line theory also told you that the length of the bow should be to that of the run as 3 to 2. The cause of this was explained.

The lines of the Great Eastern, the author said, were neither more nor less than an exact copy of the wave lines. The length of the bow was 330 feet; the length of the run 226 feet; and having got this length of entrance and run, and feeling that more capacity was wanted, it was of no use lengthening the bow or the run, because there was already provision for greater speed than the 15 miles an hour which the power to be put into her could be expected to give; 120 feet of parallel body were

therefore put into her amidships. The great ship might be of less fine-lines and still go with the same velocity.

There was a very valuable conclusion for practical shipbuilders to be drawn, independently of what had been stated about the lines. It was this; that proportionate length and breadth was not necessary at all for a fast vessel. It was not necessary for a fast vessel that she should be a narrow, thin, long vessel in proportion to her size. The author had taken vessels on the wave line principle 200 feet long, and had made them of every variety of breadth, and as long as they were 200 feet long, and had the lines belonging to 15 or 16 miles an hour, so long they had gone at that velocity with a given power. Further, the resistance which a vessel experiences from the sticking of water to the skin was a most formidable element of her whole resistance; and greater velocity in proportion to power would be got out of a vessel which was shorter than another, and also broader and deeper than another, providing length enough for the velocity aimed at were got at starting.

The author's paper next contained remarks upon the effects of the wave line upon the stability of ships—its bearing upon the load-water line—how it affected the form of the deck—how it should affect the structure of the vessel—how vessels should be built upon it so as to have a maximum of capacity—how the various proportions of length, breadth, and depth affected resistance—how the whole form could be so managed as to properly arrange the balance of the ship—how the wave line affected the navigable qualities of a ship—how it affected the materials of which the ship should be built—and how it influenced the properties of sailing ships, paddle-steamers, and screw-steamers respectively. But these considerations could not then be gone into. They would, however, appear in the institution's forthcoming *Transactions*.

It was the duty of the author, however, to say a word or two on the history of the subject, and the degree of novelty or non-novelty to which it pretended. And he begun with saying that he did not claim to be the inventor of hollow bows. They had existed as far back as he could trace steam navigation. When he had first discovered what he believed to be the principles of nature which bore on this subject, he felt that the form of vessel which accorded with them could not be new, and he set about examining all classes of vessels. He found proofs immediately; so many, that he felt astonished that the books and treatises on naval architecture had not all told them to do nothing but make hollow bows from the beginning. He showed that it must have been impossible for barbarous men to have made a rough boat from two flat planks without forming such a bow. But the old tonnage laws had compelled builders to make ships of the greatest possible capacity compatible with certain measurements. Hence the bluff bow was made a matter of necessity. When, during the wars, we captured Spanish ships or privateers with fine, and often hollow, lines below, vessels which sailed admirably under their original trim, in which they were down by the stem, we invariably found that they proved but dull sailors in our hands, owing undoubtedly to the fact that we not only overloaded them with weights, but trimmed them nearer to an even keel, and so brought the bluff upper part of their bows down into the water. The boats of the London waterman illustrated the same principle. The author next alluded to the Vesper, built from Mr. Ditchburn's design by Fletcher and Fearnall, in which, on coming to

London in 1836 or 1837, he found a confirmation of the views which he embodied in the Wave in 1835. He also referred to a boat built by the late Mr. Assheton Smith, and to several other vessels built successively by himself and others.

Art. V.—THE VALLEYS OF THE ST. LAWRENCE AND THE MISSISSIPPI.

VERTICAL TOPOGRAPHY, AND CLIMATOLOGY OF THE VALLEYS OF THE ST. LAWRENCE, THE OHIO, AND MISSISSIPPI, WITH THE AVERAGE FALL OF RAIN PER ANNUM—THE EFFECT OF RAIN, WITH THE TROPICAL TRADE WINDS, IN PRODUCING WHEAT, AND PARTICULARLY INDIAN CORN, ON OUR PRAIRIES, AS COMPARED WITH THE CANADAS—THE SEVERAL PRODUCING REGIONS OF THE UNITED STATES, DEPENDENT ON EACH OTHER—THE IMPORTANCE OF RAILWAYS FROM OUR SEABOARD TO OUR GRAIN PRAIRIES.

A LATE discussion between the Hamilton *Spectator*, U. C., and the editors of the Chicago *Press and Tribune*, in a review by the former of Mr. James Caird's valuable work, entitled "Prairie Farming in America"—treating of the soil of the States of Ohio, Indiana, and Illinois, to produce grain, the climate, and the healthiness of their prairies, as compared with the Valley of the St. Lawrence, and also of the relative merits of the two regions for the emigrant from Europe to remove to—the correspondent of the *Spectator*, who describes the prairies as "one vast trembling mass of peat—a semi-fluid of mud"—has led the writer to look into the drainage from the St. Lawrence water-shed, south of the lakes, and from New York and Pennsylvania, to ascertain how far the peculiar topography of this part of our continent has its effect in settling the question, that the prairies of Ohio, Indiana, and Illinois, and we may add the States of Michigan and Wisconsin, with the States forming to the west of the Mississippi, are among the best, if not *the very best, body of* GRAIN LANDS in the world, and are not "a semi-liquid mass of peat;" while the lands in the narrow and peculiarly formed valley of the St. Lawrence, and particularly the frosty high grounds of 1,200 to 1,500 feet elevation above tide, on the north of the lakes, cannot be compared with Ohio, Indiana, and Illinois for agricultural purposes, and is not superior to these States for climate and health.

The numerous levels taken for canals and railways of late years, and in every direction, show the summits of lands and direction of drainage, both in the United States and the Canadas. They present some curious topographical facts that are interesting, as to the heights of ground, the depression of valleys, the latitudes, and the relative nearness of the Ohio and the St. Lawrence to the hot tropical trade-winds that, coming from Africa across the Atlantic, are forced into the valley of the Mississippi, and of the Ohio, causing thereby an earlier spring and a later fall, to ripen Indian corn, and which wind does not fairly reach the valley of the St. Lawrence.

"*The mean distribution of rain for the year, on the North American continent, between latitude* 25° *and* 50° *north*," (see Blodget's Climatology, page 354,) presents some facts, from which we make extracts, to show the fall of water in the year on the Southern States, the valley of the Ohio, and the St. Lawrence, having an important influence on heat and moisture so necessary in raising wheat and corn, as well as cotton.

It is ascertained that the head waters of the St. Lawrence, or more properly the head waters of Lake Superior, and the head waters of the Mississippi commingle and divide at and near the Lake Itasca, (lat. 45, long. 94,) in three directions: to the North Sea by the Red River; to the East and Northeast by the lakes forming the St. Lawrence Valley, discharging their waters into the Atlantic, latitude 46 north, where —and it is a singular fact, too—the dividing ridge south of and opposite Quebec is 1,500 feet above tide, the same as at its source and at several points on its southern and northern borders, as we shall show. To the South the Mississippi River discharges in lat. 29, with a steamboat navigation nearly its entire course, while the Missouri reaches near the head waters of the Columbia River, on the Pacific.

It is interesting to get a view, if we may use the term, of the peculiar *make of the ground* for drainage from along the water-shed on Lakes Erie and Michigan, the course of the streams, and the fall of water into the Ohio Valley, and the shape of the country and its adaptation to grain agriculture, as well as pasture.

The inquiry is an interesting one as to the effect of the east or trade winds passing through the tropics—starting from Africa—with the great evaporation in its course, precipitated in fertilizing rains, on the *unique cotton lands* of the Southern States, to the extent of 48 inches in South Carolina; 63 inches per annum in Alabama, according to fertility, and 60 inches in Louisiana and Mississippi.

On our *grain lands* the rain falls 45 to 48 inches per annum to the north of the Ohio up to the dividing line or water-shed, that drains from near Lake Erie into the Valley of the St. Lawrence, where, to show the difference in fertility and in moisture, the rains fall in Canada West, north of Lake Erie and east of Detroit, on the average, only 30 inches per annum, and 36 inches in the region of Montreal, as compared with 4 feet in the Valley of the Ohio and the Mississippi.

The effect of the trade or south and southwest winds in producing an early spring is obvious. It drives back the Northers and Northwesters into the St. Lawrence Valley, so that Indian corn and spring grains can be sown much earlier in the Valleys of the Mississippi and Ohio than in the Valley of the St. Lawrence. This is very important in an agricultural point of view, for, in the Canadas, we find Indian corn—the king of grains—is often cut off by early frosts, and it is an uncertain crop, even in its dwarfed state, of the early eight-rowed species. This class of corn cannot be compared with the prairie corn, 12 to 18 feet high, with ears 12 to 18 inches long, and yielding 80 to 100 bushels to the acre—wheat, 20 to 50 bushels.

An acquaintance with the reports of railway surveys, and thus of the general topography of the country, enables us to present the following facts:—Whether the shape of the earth arises from its upheaving in certain parts and depression in others, making valleys and the course of streams, as contended for by geologists, or by the subsidence of the waters into their several channels after the Deluge, we will not now discuss. The formation of the St. Lawrence and the Mississippi Valleys is peculiar. Take a topographical map and you will find, as we have stated, that the waters of the Mississippi and the St. Lawrence nearly unite 1,570 feet above tide. There is the same summit in a ridge of land that extends on the north shores of Lake Superior, and continues to past Lake

Huron, and diminishes to 1,100 and 1,200 feet at and near Lake Simcoe, and from thence diminishes to Montreal—the head of navigation, being 70 feet above tide. The dividing ridge of land opposite Quebec, and the Atlantic Ocean, is 1,500 feet, the same as at the source of the valley, and nearly the same on the north and south sides of the valley.

Lake Ontario.....feet above tide	236
Lake Erie.....	565
Lake Michigan.....	580
Lake Huron	580
Lake Superior.....	680

Thus forming what is called the Valley of the St. Lawrence. This valley is moderate, and varying in width. It has some good but much inferior soil. This is indicated by the Alpine character of the timber, being in fact the *great lumber and pine region* east of the Mississippi.

The southern line of the Valley of the St. Lawrence is a well defined ridge of land through New York, to be found in Jefferson County, near the sources of the Black River. This stream drains into the St. Lawrence on the *north*, 1,500 above tide, and to the *south* by the Mohawk River and the Little Falls, to the Hudson and the Ocean. The dividing ridge, a little south of Little Falls, and the head waters of the Susquehanna River is 1,488 feet above tide. From these head waters of the Susquehanna, proceeding west, near the center of waving table lands of New York, and south of the Erie Canal, is a well defined ridge of land, until it strikes the head waters of the Genesee River, and the Alleghany River, that by a singular coincidence, is also 1,488 feet above tide, being the summit of the Genesee Valley Canal.

These two streams also drain in opposite directions. The one, north to Lake Ontario, the other, south and southwest, drains by Pittsburg, situated 700 feet above tide, into the Ohio River, which stream has a descent, with perfect steamboat navigation, spring and fall, to Cairo on the Mississippi, situated 275 feet above tide, thus making the ascent or drainage from the sources of the Alleghany 1,213 feet. There is a slight ridge of from 100 to 300 feet extending along the shores of lake Erie, from the State of New York through Pennsylvania, to Ackron and Portage, Ohio, by which place we have the Ohio Canal, connecting Cleveland, on Lake Erie, with the Ohio River at Portsmouth, distant in a direct line 210 miles, and with a drainage of about 2 feet to the mile. On the west part of the State we have the Maumee and Miami Canal—the longest in the United States, with nearly a south course to Cincinnati. In a direct line it is 195 miles from lake to river, and with a drainage into Lake Erie of 3 feet to the mile, and a like descent by the Maumee to the Ohio. Near this line is Belfontaine, 1,400 above tide, "*the highest land in Ohio.*" These canals, with their branches, number 796 miles. The railways in this State, up to the 1st January, 1860, completed and in operation, numbered 3,008 miles, built at a cost of $127,949,123. They are drawing to themselves the business of the canals, and serving materially to drain the country and to facilitate its settlement with agriculturists from New and Old England.

In Indiana we have the Wabash and Erie Canal, that diverges from the Maumee Canal in Ohio, and, after passing through the State of Indiana from its northeast corner, empties itself into the Ohio at Evansville, in its southwest corner. The average drainage, from north to south, of

the States of Ohio, Indiana, and Illinois is from 1½ to 2 feet to the mile. The railways completed in Indiana to the 1st January, 1858, was 1,231 miles, at a cost of $28,000,000, aiding also to drain the State and facilitate its settlement.

We have in Illinois her ship canal, commencing near Chicago, 610 feet above tide, and 30 feet above Lake Michigan, that discharges itself with the river into the Mississippi near Alton, situated 380 feet above tide, with a general southwest course. Its descent is near 2 feet to the mile. This is sufficient, with the numerous affluents of Illinois River, to drain this part of the State. The southern part, or Egypt—famous for its rich wheat and corn lands, with beds of bituminous coal—is drained by the Kaskaskia and the Little Wabash Rivers and their branches. The north part of the State of Illinois is drained by Rock River, abounding in water privileges, and with excellent waving wheat and corn lands. The number of miles of railways in this State, completed and in operation to the 1st January, 1860, was 2,616 miles, costing $86,446,291, among which is the famous Illinois Central, holding out great inducements to buy its lands, at long credits, and to settle on the same. This State has great facilities to reach the Baltimore, Philadelphia, and New York markets by railroads, or to float down the Mississippi to New Orleans, and thus an outlet to the West Indies and Europe.

The situation of these three grain States—the present granary of the United States—is peculiar. The trade winds, with rain, burst on them early in the spring, giving them a much earlier and a longer season than either Upper or Lower Canada. We find, as stated, they are drained from the sources of the Alleghany in New York and Pennsylvania to the Mississippi, with a descent of full 1,000 feet, with a southwest aspect, presenting the most magnificent body of wheat and corn lands on this continent, if not in the world, yet the Hamilton *Spectator* stigmatizes this region "as a vast mass of trembling peat," and not to be compared with the timber lands of the Canadas, so expensive to clear.

The comparative fall of rain per annum in the two regions is striking. Opposite and east of Detroit, on the best lands of Upper Canada, laying north of Lake Erie, the fall is only 30 inches, as compared with 50 inches in Illinois and Indiana, and 42 to 48 inches in Ohio. The true grain region of the United States is from lat. 33 to 40. Parts of Ohio and Kentucky have been under tillage for corn and wheat for upwards of 70 years, and continue to produce excellent crops without manure. Indian corn, it is stated, can be raised at from 8 to 12 cents per bushel, and wheat at from 25 to 30 cents, and such are the facilities and the competition of rival lines, by water and by rail, to the seaboard, that we can deliver a bushel of wheat of the best quality in London, the regulating market for Europe, at a cheaper rate, paying cost, than the English or French producer, who has annually to buy his manure—an animal pabulum—to produce this grain, and has also to pay heavy rents and taxes for the land, now monopolized by a few families who formerly, with their corn laws, kept their operatives to nearly the starving point, until the corn riots forced their repeal, when, and only after this period, John Bull became amiable, and found out traits in Brother Jonathan's character, who had grain to sell, that he could never discover before.

It does not appear that much, or in fact any, dependence is placed by Great Britain in finding a surplus of grain in the Canadas to answer the

wants of her grumbling operatives in case of need. The Lower Province has no surplus beyond her daily wants. Indian corn is a grain that does not succeed, from the short summers, and but partially, from the same cause and the want of genial showers—heat and moisture—in the Upper Province to mature this valuable grain. In truth, the Canadas—the Valley of the St. Lawrence—may be called the great *lumber region* of this continent, accessible at cheap rates, for transportation to the Atlantic, to supply the British and American markets.

The true, natural *grain region* of the United States, we repeat, is from lat. 33 N. to 40, and may be said to extend west to the Ozark Hills, also 1,500 feet above tide, and extending to the sources of the Missouri and the Mississippi.

The *cotton region*, influenced by heat and moist climate, is in the southern seaboard States, north of the Gulf Stream, and has a fall of rain on them to the extent of from 50 to 63 inches per annum. This gives a *fiber* to the cotton, owing to climate and soil, that cannot be dispensed with in Manchester, and, so far as we learn, all experiments by the British government and her manufacturers have not produced its equal in any part of the world, even with the aid of our sea island and upland seeds, and with Southern laborers and planters to direct the experiments in Egypt and in India.

Kentucky, Virginia, and Maryland may be named as our *tobacco States*, and Southern Mississippi, Louisiana, and Florida our *sugar States*.

The great *iron region* (and of *copper*, too,) extends from around Lake Superior and by the Ottawa district to Northern New York—Essex and Adirondack—and from thence through Ulster, Northern New Jersey, Pennsylvania—where hard coal, iron, and lime are in juxtaposition—soft coal in Maryland—North Virginia, through Kentucky, to Tennessee, and to the Iron Mountain of Missouri, of all kinds and qualities.

The true and delicate *butter and cheese region* is in the States of New York, Vermont, New Jersey, and Eastern Pennsylvania—on the slopes of the hills falling into the Atlantic from the Alleghany ridge, abounding in trout streams—good water—the natural grasses, with white clover, the favorite grass for cows.

New England may be classed as the great *manufacturing, patent right*, and *inventing region*, with a good sprinkling of railroads. Boston, with the cities of New York, Philadelphia, and Baltimore, is the *commercial district* of this continent. Its center—the city of New York—is destined hereafter to take from Threadneedle-street, London, the trouble of regulating the price of exchange over the world, as well as the price of grain, as heretofore has been the case. The British bankers did not allow a reciprocal course of exchange or credits—allowed by them to all parts of Europe and Asia—and we are still tabooed in China, by being obliged to draw on them to pay the Chinaman for teas and silks, instead of drawing direct on New York, with one risk of remittance, as should be the case, and will be ere long.

The yearly increase of capital in the city of New York, produced in part by the labor of California on her *gold region*, with the more important one of the labor of the Southern operatives on cotton, tobacco, sugar, and rice, producing, we believe, upwards of $250,000,000 surplus for exportation, besides the food necessary for the support of the Southern population—this, with the labor of the West on her grain crops, I

repeat, is giving the city of New York capital, independent of Europe. The course of trade will, ere long, make her the commercial center of the world, and the controlling market for exchange, and the price of grain.

The labor of New England on her cotton and woolen manufactures, her boots and shoes, on her hay to feed her beeves and cows, buys her her cotton, with which, when manufactured, with profit on her labor, she exchanges with the Western States for their breadstuffs, beef, and pork, to support and supply her operatives. This is done with profit on Southern capital—her cotton—and also in carrying the same to Europe, so as to leave her whole ice and granite exports clear. Her catch of whales is an item not much if any greater than the produce from the prairie whale—the hog, in oil, lard, candles, and pork—exported yearly from Ohio, Indiana, and Illinois to the New England and Middle States.

The manufacturers and operatives of New England, as well as Old England, it would appear are dependent on the labor to produce king cotton; yet, forsooth, it would appear—"as all the fools are not yet dead"—there are fanatics in both regions disputing about "a moral and a constitutional question," on which few can agree, on what to do with the improved slave, imported by our forefathers from Africa; and they would rend this glorious Union in twain, when all its parts are dependent on each other, from the peculiar formation of the country, as we have endeavored to show, in answering the Hamilton *Spectator*, that the Canadas are not the better grain region as compared with the "prairies of America," while English capitalists and manufacturers show, by their enormous expenditures on the Grand Trunk Railroad to reach our prairies, that they are determined to be independent of Russia and the continent of Europe for grain. The agriculture of Great Britain is gradually undergoing a change—from raising grain to raising mutton for wool—fat beeves, with butter and cheese, for her operatives. They must have "the staff of life" cheap; hence, the cultivation of the most intimate relations with the United States. Our cotton is indispensable; so, ere long, will be our wheat and corn.

The fiber of our cotton is acknowledged indispensable to her manufactures. So will be, ere long, our wheat and corn, for the reason that we can produce and lay down wheat at Mark Lane, for the world, at a price less than it costs to raise it in Great Britain and France. We took this ground October, 1849, (see 9th vol., page 425, "N. Y. State Agricultural Transactions,") and we now take pleasure and pride in referring to "the visionary views" we entertained at that day, and as early as 1838, (see "Reports from the Common Council," July 10, 1840, and from Mr. Scoles to the Assembly the 8th February, 1839,) when we could not persuade New Yorkers that they wanted *a* railway to connect with Albany and Troy, and thus with the lakes at Oswego and Buffalo, and to be made continuous, finally, to the West. A committee of the Chamber of Commerce, July, 1840, made a written report—a curious document now. They "only wanted the Housatonic for winter travel and the noble Hudson for summer."

Oswego, October 31, 1849.

Mr. B. P. Johnson, Sec'y of the N. Y. State Agricultural Society:

I have received your circular asking information, etc.

The completion of these two important railroads through this county has given a new impulse to our agriculture. * * * Railways

are not impeded by the droughts of summer, nor are they stopped by the ice and snows of winter. They are overcoming our Alleghany Mountains, where canals cannot be constructed, thus commencing *a new era* in the transportation of articles that cannot be conveyed on canals. In the winter they will open the way to the *granaries of the United States*, so desirable to supply the first demand from Great Britain. With railways for winter transit, and the cheap production of wheat on our rich prairies, abounding with the deposit of animal and vegetable manures, we can compete with the continent of Europe in supplying the British market, on a failure of the English crop, ere the ports of the Baltic can be opened. I believe it admits of demonstration, that, with *our labor-saving machines*, cheap and rich lands almost without taxes, we can compete with the farmers even of Great Britain in the cost of placing a bushel of wheat in Mark Lane, London. We certainly can do it, taking into consideration that the English farmer has to pay, on the average, about $3 per acre per annum for the rent of his arable land, a larger sum to manure it, with poor rates and church taxes, to an amount that he must receive $1 50 per bushel in London for his wheat to compensate him for his labor.

One dollar and fifty cents in London per bushel for wheat will pay a *profit* to the Western farmer, forwarder, and ship-owner, while this sum will scarcely remunerate the producer and shipper from either the Black Sea, the Baltic, or any part of the continent of Europe.

The cheap but inferior wheat of Russia, shipped from the Black Sea, by the long voyage of the Mediterranean, cannot compete in the London market with our wheat, as their vessels have but one freight towards a market, while we have freight both ways. This is an important consideration, when we come to a close competition with Russia, in supplying any deficiency in Great Britain. *Then, railways to our prairies cannot be dispensed with.* * * * *

The advantages our farmers will possess by railways to the West, and with steam navigation across the Atlantic, will place the regulating market of Europe for grain, (Mark Lane,) within 15 to 20 days of the Valley of the Mississippi. This being so, the moment the British market requires a supply, from failure or injury to the crops by rains, it will be furnished by our enterprise, and, as I contend, on better terms than it can be supplied by serf labor on the worn out lands of northern and southern Europe, or on the expensive and heavily-taxed lands of Great Britain. Time and experience, I think, will prove the correctness of this position, and if so, how important is *an unbroken line of railways to St. Louis*, to enable the city of New York to have her share of the winter trafic in wheat, now that the completion of the Central Railway of Pennsylvania is secured, and also the Baltimore and Ohio Railroad, and in four years its extension to St. Louis.

* * * On the north of us we have a railway in the course of construction from *Rome to Cape Vincent*. On the southwest we have completed the *Oswego and Syracuse* Railroad. * * * * The competition between railways and canals, and I may add the North River, is sure to introduce accommodation. With it, in due time, will come the ice or refrigerator car, so necessary to carry our fresh butter, provisions, salmon, and other fish from Lake Ontario. When these continuous railways are open to New York, it is hoped our farmers will send

representatives to our Legislature to protect their true interests. They will, I trust, insist upon a repeal of the present tax on private enterprise and capital, when it comes in competition with the State canals.

The Erie Canal, *unique* in its character, uniting inland seas with the ocean, has made the grain-growing districts of New York "to bloom and blossom like the rose." It is safe, however, to predict that the construction of railways through the grass lands of southern and northern New York, particularly the Erie Railroad and its branches, is sure to produce like results in the *dairy region* in the "southern tier of counties."

A level or descending freight railway from Buffalo to Albany, a work easy to be accomplished, over which a single engine can draw, in a single train, 1,000 tons gross, is much wanted to connect us with the States of Ohio, Michigan, Indiana, and Illinois, and finally the Pacific. There is hardly any conceivable limit to the production of grain on our prairies; and with railways, I repeat, at compensating prices, *we can compete in London with the North and South of Europe.* The London market has been the regulator of ours, even for the limited quantity of wheat required, but which has been steadily on the increase for a long period of years, to wit: from the year 1760, when it was 752,715 bushels, to 7,264,844 bushels in 1840.

It is now ten years since we wrote the foregoing—then considered visionary views. There are now six unbroken trunk lines in the United States, completed to opposite St. Louis, and to Chicago, the present grain center of the West. These are independent of the Grand Trunk and Great Western railroads of the Canadas to Windsor, opposite Detroit. We have also, south of Baltimore, five other trunk roads, all nearly finished from ports on the sea board to the Valley of the Ohio, to connect with Chicago, and thus with Edwin F. Johnson's, C. E., "Northern Railroad to the Straits of Fucca," in one continuous, unbroken line from the city of New York.

We have completed our reapers and superior fanning mills, while the greatest boon to the prairie farmer—the steam plow—may be considered a success. We are perfecting our grain cars and elevators. Mr. H. Merrit has put in operation his ventratory grain railway by the side of the Willard Canal, so desirable to turn over Indian corn, and to save time in its transit to Europe.

To perfect the system of railroads, and to tap effectually the lakes and the grain warehouses constructing at Montreal for the benefit of the Grand Trunk Railway, and the consumers of wheat in Great Britain, the stockholders in the Hudson River and Harlem railroads should consolidate these roads—one mainly for freight and the other for passengers. They should encircle the city so as to use the present warehouses on the East and North rivers, and build steam elevators, to discharge cars, weigh wheat, and load vessels to Europe. J. E. B.

Art. VI.—PINE FORESTS OF GEORGIA.

Among the important crops of the southern countries there is one that gives cargoes to more ships from the southern ports than cotton or any other one article of commerce, and which notwithstanding seems to have escaped notice, and that is the crop of timber from the yellow pine forests. The heavy drafts made upon these forests of late years, justly call for some inquiry into the subject, and in looking over the laws of Georgia, it appears that the following resolution was passed by the last Legislature, December 11th, 1858 :—

Resolved, Therefore, by the General Assembly of the State of Georgia, that our Senators and Representatives in Congress be requested to use their influence in having a commission appointed by Congress to inquire into the limits and extent of the Southern Pine Belt; what will be the probable time of its duration under the present rate of depletion; the quantity of pine timber annually shipped, and to what countries; together with any and all matters of interest connected with the subject.

Resolved, That his Excellency the Governor be requested to forward a copy of these resolutions to each of our Senators and Representatives.

Congress has as yet taken no action upon these interesting resolutions; but they will no doubt receive their proper attention at the next meeting of Congress.

Digressing somewhat from my subject, I cannot refrain from expressing the opinion that while Georgia, for some years past, has had her full share of talent and power in the legislative halls of the nation, yet her local interests have been sadly neglected. Witness the tardy action of government in improving the harbor of Savannah by removing the wrecks sunk there during the revolution for the common defence—our meagre lighted harbors—the exposed condition of our coast, from attack by sea, for the want of proper harbor defence, the establishment of a navy yard at Brunswick, where our national ships could be built of the choicest materials, and cheaper than at any other point, (for the town itself is in the midst of the finest timber region in the world; live oak and pitch pine being indigenous to the soil.)

Is this apparent neglect owing to a want of knowledge of the importance of these works, on the part of representatives, or is it owing to our being an agricultural people, and so much absorbed in our domestic matters, that we do not press these things upon their consideration?

A resolution was also passed by the last Legislature, requesting representatives to use their influence in having a naval depot established at Brunswick.

This should rather have been a navy yard where our national ships may be built—a dry dock where they may be repaired. The public will yet recollect the disaster that occurred off the coast during the year 1858 to the United States frigate Sabine, while on her important mission to Paraguay. She was disabled, and the northern gale prevailing, she had to put in for repairs to Bermuda, a *foreign port*. In case of the disabling of our ships upon the West India station in winter, with northern winds prevailing, they could not reach a northern port, and with the Gulf Stream breasting them away, they could not reach the navy yard at Pensacola—thus not only the ships but the lives of the crews would be jeoparded. A navy yard at Brunswick would be very useful, not only

for repairs but for construction of our national ships. Since Georgia supplies all the material, many might be constructed south of the Chesapeake.

The waters of the Altamaha, Oconee, and Ocmulgee rivers abound with the greatest quantities of unsurpassed white oaks, which could be delivered at comparatively small expense; here the rafts of unequaled pitch pine could be received direct from the hands of the timber cutters, and the location is in the midst of the best coast of live oaks. And the grounds for the depot on Blythe Island purchased by the government is in the midst of a live oak grove.

Timber is not, like cotton and rice, an annual growth. It requires centuries for this crop to mature, and when the forest is once culled over, the crop is forever gathered, for we are altogether too fast a people to think of waiting a hundred years for another crop.

It has been estimated by the timber cutters, (by counting the rings or grains of a tree,) that it requires from three to four hundred years for it to attain a size sufficient for a mast or spar for a large sized ship, and perhaps even this may not be a fair criterion, for most of our planters in the pine region know that there are on the lines of their land saplings now no larger than a man's arm that have the surveyor's mark made forty years since.

Gentlemen that have been engaged for years in getting timber, and who own land within what appears to be the culled districts, foreseeing the future value of their forest, will not suffer a tree to be cut, preferring to purchase the trees from their neighbors.

1st. The Bounds of the Pine Belt.—Here, perhaps, it would be well to give its whole extent:—

Upon a map of the United States, let a line be drawn from the Chesapeake Bay, through Raleigh and Fayetteville, in North Carolina; Cheraw and Columbia, in South Carolina, to a point five miles above Agusta, two miles below Milledgeville, through Macon—the old agency on Flint River, to Columbus—thence across the southern part of Alabama, (the points of which I am not familiar,) and we have its northern and western boundary, and stretching from this to the ocean on the east, and the gulf on the south, over level or gently undulating plains, lies the Pine Belt of the South. There are occasionally small bodies of an oak and hickory growth interspersed, and spurs of pine jutting above this line, but so well defined is it that in places one may toss a pebble from a thick pine forest to a dense oak and hickory growth.

In going down the Georgia Railroad we strike into the pine forest, two miles above Camack, and on the Gordon Railroad, five miles below Milledgeville; and in coming down the Macon and Western Railroad, when we see the long blue line of forest stretching across the horizon, we know that Macon is near.

From the seaboard, inland, for a distance of thirty or thirty-five miles, the pines are scattering and of stinted growth, and are worthless for shipping timber. He that has traveled upon the coast, or upon the railroads from Wilmington, north or west, or Charleston to Augusta, or Savannah to Macon, must have observed that the pines are comparatively small.

It is remarkable that this *yellow*, or pitch pine growth, (for we have several species of pine,) is mainly limited between this *base of the mountains* and the sea coast. Whether because it loves the peculiar soil, or

because of its main tap root reaching deep into the earth, sometimes eight or nine feet, that it cannot thrive in the rocky region, does not appear.

Let one chalk out upon the map of the United States the lines indicated above, and he will see that Georgia possesses *more of this pine forest, perhaps, than all the other States put together.*

2d. What Proportion of the Forest has been Culled of all the valuable merchantable or shipping timber, say trees that will square fourteen inches or upwards? Commencing on the Savannah, it is asserted that all the forest bordering on that river has been culled over for a distance of *twelve* miles from the river; that it has been culled for a distance of *six* miles on each side of the Ogeechee River and Central Railroad—and for the same distance on each side of the Cannouchee and Ohoopee rivers, and for a distance of *eight* to *ten* miles on each side of the Altamaha, and for *six* miles each side of the Oconee and Ocmulgee rivers. Obstructions near the mouths of the Santillas have prevented rafts from descending, and have thus protected the forest on these rivers from sharing the same fate as that on all the other streams.

Let lines now be drawn on a map of the State parallel with the rivers at the respective distances above indicated, and the intermediate spaces colored, and we have the plan upon which the timber chart is constructed, and which will show at a glance what portions of the forests have been culled, and what remains to draw our future supplies from.

To the people of Savannah this may be of interest, as the public mind there was somewhat agitated in regard to the proper location of the timber depot for the Savannah and Gulf Railroad. It is known that the fields from which the city has heretofore received her supplies will have been gleaned over in a few years—the sources drained, and the Savannah and Gulf Railroad, the only avenue left over which she is to receive her supplies of this important article of commerce. The following figures, taken from public documents, show that whilst hewn timber has almost ceased to be an article of exportation from the northern ports, the shipments have also fallen off from those of Georgia, a pretty sure indication that the supplies are getting short.

The following shows the exports (foreign) of hewn timber, from each collection district—years ending 6th June:—

	1856.	1857.	1858.
Wilmington, N. C.....tons	520	...	....
Charleston.....	3,197	3,334	1,933
Savannah.....	26,878	53,611	23,857
Brunswick.....	.....	1,518	.....
Fernandina.....	.....	....	1,400
Apalachicola.....	.....	700	.....
Mobile.....	932	2,790	3,495
From all other ports of the United States.....	2,733	6,312	11,187
Total.....	34,260	68,265	41,174
Value.....	$234,959	$516,735	$292,163

3d. What are the Yearly Drafts made upon the Forest.—The following table shows the yearly shipments of lumber, in feet, coastwise and foreign, of our principal ports:—

	1853.	1854.	1855.	1856.	1857.	1858.
Charleston....	19,709,798	23,844,650	23,852,417	14,523,581	17,198,771	15,312,128
Savannah*....	49,283,500	28,700,700	34,887,500	44,743,070	27,254,352	37,481,674
Pensacola.....	.....	15,941,632	21,390,513	27,222,937	31,103,074	30,566,298
Mobile†.....	.....	.....	.....	17,680,760	10,482,104	11,232,949	9,359,300

The capacity of the mills tributary to the harbor of Pensacola is sufficient to saw three hundred thousand feet per day, and large bodies of pine lands have been purchased in southern Alabama from the United States Government, for lumber and naval stores.

The above tables show *that the pine forests are being rapidly swept away.* They show that while the shipments are increasing from the ports in the gulf, there is a rapid falling off from the Atlantic ports, and that the *choice hewn* or ton timber has almost ceased to be an article of export from the Northern ports. It shows, too, that they are sweeping down the forest on the gulf side as if it were inexhaustible. Referring now to the forest of Georgia. The collector's reports from Darien show that the shipments of lumber from that port nearly or quite equal those from Savannah; then there are the shipments from Brunswick, from Jeffersonville, and the Santilla, and St. Mary's, which may all reach a like amount, so that it would be a safe calculation to put the shipments of lumber from the Atlantic ports of Georgia to at least *one hundred millions of feet annually.* To this may be added for home consumption, plantation uses, house building, &c., fully a like amount. Estimating the average yield of one thousand feet of lumber per acre, would show a yearly destruction of our forest from this source of *two hundred thousand acres.*

Upon this point the experience of some of our timber cutters, of what would be a fair average for shipping or merchantable timber, and also for the common saw-mill or ranging timber per acre, would be of great interest.

Large as this amount may seem, it is small compared with the yearly amount destroyed by the planter in clearing land. No estimate of this can be made until the census of 1860 is taken.

The tide of emigration is setting so strong upon this pine belt, particularly on its western side, upon the waters of the Chattahoochee and Flint, that commerce must not look there for timber, for in a few years that whole country will be checkered into plantations. So rapid has been the settlements of portions of that country, and so wanton and prodigal have been the planters in regard to the timber, that where, twenty years since, there was an unbroken pine forest, now in places there is a scarcity of timber for fencing.

To some the sight of this wholesale destruction of forests of fine timber is really distressing; not unfrequently will one planter deaden and destroy a thousand acres in one season.

Who are the customers for this vast amount of lumber? Upon the west we have Texas and Mexico; on the south the West Indies; and every government, on the northern and east shores of South America; on the north every State bordering on the coast from Maryland to Maine. The State of Maine, once the largest lumber exporting State of the Union, is now one of our best customers for this timber.

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* The Savannah export for the year 1858 is taken to August 5th, 1859.

† Besides the above, there was shipped from Mobile, in 1855, of masts and spars, 2,357; of tons of timber, 2,207, and deck plank, 351,260 feet. In 1857, of masts and spars, 1,263; hewn timber, 547½ tons; of deck plank, 160,245 feet. In 1858, 1,164 masts; of hewn timber, 16,796 tons.

It is entering so largely into the construction of our shipping, that it would be a very expensive, if not a difficult, matter to build a vessel without it. The sharp clipper shape of the vessels built of late years allows this material to be used for planking, where formerly only white oak would answer.

In Europe, we have for our customers Portugal, Spain, France, Ireland, Scotland, England, and every government bordering upon the Atlantic waters; while it is sent up the Mediterranean to its very eastern shores, and camels are no doubt at this time transporting it to the Holy City. Think of that! Georgia pines slung upon camels' backs going to Jerusalem!

The following table from public documents, (commerce and navigation,) shows the values drawn from our pine forest and shipped to foreign ports for the past three years:—

	1856.	1857.	1858.
Value of hewn timber	$284,959	$516,735	$292,163
Boards, plank, scantling, and other timber	729,256	2,001,121	1,158,347
Tar and pitch	235,487	208,610	100,679
Rosin and turpentine	1,222,066	1,544,572	1,464,210
Spirits turpentine	839,048	741,346	1,089,232
Total	$3,260,826	$5,012,384	$4,104,681

Here we have the value of four to five million dollars yearly shipped to foreign ports, whilst the amount consumed in the United States must be at least double.

And this is the forest which we have among us, that to some is a bugbear; whilst it is skinned, bled, cut, and mangled, yielding to us the sum of twelve to fifteen millions of dollars annually, without hardly a thought being bestowed upon the value of the remaining carcass.

What protection do the laws of the State give to the owners of these forest? None. If a man steals a cow worth ten dollars, or a pig worth three, he is provided with accommodations in the penitentiary, but if he steals a pine tree, worth perhaps fifty dollars, as it stands, (and some of these trees bring in market three to four hundred dollars,) nothing can be done with him, unless caught in the act, and then only a civil suit can be instituted, and being tried, may be, by sympathizers or persons engaged in the same business, is easily acquitted. Thus every man that owns this kind of property is completely at the mercy of these highland pirates. There is no security for him unless he employs a special agent to look after it. The want of laws to protect this property is often attended with serious consequences. When the price of timber advances, thousands of irresponsible persons pitch into the business of timber-getting. To hunt up the owners and purchase the lands is often the last thing they think of, for why should they? when they can take what they want without fear of anything but a civil action. Thus all interests are made to suffer—the regular timber-getters and merchants, by glutting the market, and the owner of the land by the depreciation of his property, in the loss of his timber.

In Florida they have the most rigid laws to protect their forest, while the citizens of Georgia are pillaged by the people from that quarter, cutting and rafting the timber off on the streams that flow out of the State.

The government of the United States, doubtless looking to the rapid destruction of the pine forest, and foreseeing a scarcity of this valuable timber for her naval purposes, has withdrawn from sale large quantities of her pine lands lying upon the Suwannee River in Florida, and under date 3d March, 1859, perfected a most stringent law protecting her forest trees.

JOURNAL OF MERCANTILE LAW.

IMITATION OF TRADE MARKS—SIMILAR FIRM NAME—CONTINUANCE OF FIRM NAME BY STRANGERS—ASSIGNMENT OF RIGHT TO A TRADE MARK.

In the New York Superior Court.—April, 1860. Hon. MURRAY HOFFMAN presiding. J. & P. Coats *vs.* Platt, *et al.*

In January last an injunction was granted to restrain defendants from selling an article of spool cotton, made by the firm of J. & T. COATS, (or rather by their successors.) and so marked, got up in imitation of the plaintiff's spool cotton, and having the plaintiff's emblems or trade marks on the wrappers. A motion was made to dissolve this injunction, upon which, after argument by A. BOARDMAN and J. W. GERARD for the motion, and by CHARLES EDWARDS and WM. M. EVARTS contra. the following decision was rendered by—

Hon. MURRAY HOFFMAN, J.—The plaintiffs are residents of Paisley, in Scotland, and are partners, trading under the name of "J. & P. COATS." They are manufacturers and sellers of cotton sewing thread on spools.

This firm, under the same name and style, has been in existence and engaged in the same business since the year 1830. It originally consisted of JAMES COATS and PETER COATS. THOMAS COATS subsequently became a partner. JAMES died about the year 1847, and the business was continued by the survivors in the same name. The present plaintiff, JAMES COATS, Jr., was brought in about the year 1856.

This continuation of the original firm name, even in the interval between the death of JAMES in 1847, and the introduction of JAMES, Jr., in 1856, was legal and common by the law of England, and, I am warranted in saying, by that of Scotland.

As early as 1844, the firm introduced the spool cotton thread into the United States. HUGH AUCHINCLOSS & Sons became agents for its sale, and have continued so until the present time.

When so introduced the present style of the wrappers and labels, as exhibited on this motion, was adopted by the makers and has continued until the present day.

At the time of the introduction of the plaintiffs' spool-cotton thread into the United States, there were known in the market various other specimens of such thread, TAYLOR'S, CLARK'S, &c., but all of them were plainly and essentially distinguished by marks and emblems, &c., from the thread of J. & P. COATS.

The establishment of a reputation in the United States for the thread of the plaintiffs, with a right to the use of distinguishing marks and symbols, devised by and appropriated to themselves, and their own thread, is fully made out.

Before the year 1851, JOHN and THOMAS COATS, of Glasgow, Scotland, were manufacturers of silk thread, and in that year commenced the manufacture of cotton thread at Paisley. The firm was composed of JOHN COATS and THOMAS COATS. In the year 1855 THOMAS died, JOHN COATS was the son of THOMAS, was educated as a surgeon, and has never been engaged in the conduct of any business whatever except that of his profession, and except as sworn to that he and the widow continued the work by their agents or licensees, and received payment therefor in the shape of a percentage. Prior to the death of THOMAS an arrangement had been made with one ANDERSON, a cotton-thread manufacturer of Glasgow, by which they commenced manufacturing cotton thread at Paisley, near the manufactory of J. & P. COATS, with the sign affixed of J. & T. COATS.

After the death of THOMAS the manufacture was continued by ANDERSON and those associated with him, under an agreement made by him with the said JOHN COATS and the executrix of said THOMAS COATS, until the insolvency or bankruptcy of the said ANDERSON, in September, 1859. At some period during this time, one HILL and one MCKENZIE had been introduced into the concern with ANDERSON.

In 1851 the thread of J. & T. COATS began to be introduced into the New York market, through the house of GODFREY, PATTISON & Co., and was so continued down to the bankruptcy of such last-named firm, in 1859. Large quantities of such thread were sold in the city of New York and elsewhere in the United States.

The manufacture thus continued until September, 1859, when ANDERSON and his associates became bankrupt.

In September, 1859, an agreement was entered into between JOHN COATS and the executrix of THOMAS COATS with one JOHN W. DAWSON, relating to the manufacture and sale of cotton-thread, and the use of the name of J. & T. COATS; the executrix and said JOHN COATS were to have the right of inspecting and examining, to receive a percentage upon the amount of sales of such thread and, to institute and carry out legal proceedings to prevent the infringement of their trade marks. Under the arrangement so made, the manufacture and sale of thread, under the old name and style, has been continued to this day.

The boxes, labels, stamps, cuts, &c., used by the parties acting in the name of J. & T. COATS, on the packages, large and small, prior to the fall of 1859, were, in all material respects, so dis-similar to those of the plaintiffs that I do not know how the former could be interfered with, unless upon the ground of the use of the name of J. & T. COATS—a point hereafter examined. Though the wrapper was a similar color, the vignette was totally different. There was really nothing to justify the charge of simulation.

This thread of J. & T. COATS, so put up, it is proven, did not meet with a ready sale in the United States.

During some part of the connection between ANDERSON, MCKENZIE, and HILL, under the permission of the executrix and JOHN COATS, the style of the firm was J. & T. COATS & Co. The word company is omitted, and it is attempted to be explained by PLATT on the ground of a wish to have the full benefit of the old firm name, and the inconvenience of altering plates.

In the fall of 1859 the former vignette or emblem of J. & T. COATS on the wrappers, which was simply the royal arms of Great Britain, was changed for all cotton thread sent to the United States, and the label or vignette now complained of was substituted.

Upon one branch of the case my opinion is clear. I consider it fully made out that J. & P. COATS first designed as an emblem and trade mark a combination of the arms of Great Britain and the United States, signified by a lion and eagle, and the English and American shields and flags; that they were the first to use such an emblem in England and the United States; that they have used such a symbol and trade mark since 1844 in the United States, and without any interruption of their exclusive use of it, until the fall of 1859; that the abandonment of their former symbol by the parties acting under the style of J. & T. COATS, and adoption of the present mark, was a plain and intended violation of the plaintiffs' rights; and that the simulation is too decided, and the differences too unimportant as to the wrappers stamped with these emblems to protect the defendants from an injunction to that extent.

I am far from saying that there are not marked differences in arrangement, and in some variation and additions or omissions. But I consider that the plaintiffs had acquired a right to the great and leading elements of these arms, flags, shields, and mottoes, in combination; and a device which used them all was a violation of the right.

The next question is of more difficulty. The difficulty is increased, from the strong impression which the facts leave upon the mind, that the whole course of manufacturing in the name of J. & T. COATS was a concerted and adroitly contrived scheme to profit by the established repute of J. & P. COATS' thread. But if this impression is warranted I am still compelled to the conclusion that the parties have not gone beyond the confines of the law, though they tread upon its verge.

It cannot but be conceded that THOMAS COATS had, in 1851, the absolute legal right to unite his son JOHN with him, though a minor, and to leave his silk-

thread business for the manufacture of cotton-thread, and to use the name of J. & T. COATS to designate their thread on spools, wrappers, &c. It was not unlawful to give the name of his minor son the preference in the firm style.

On the case made, it cannot be said, that the continuance of the name with the sanction and in connection with the widow and executrix, and of the survivor of the firm, was unlawful in Scotland. Here, the opinion of the lord Advocate MONCRIEF and Mr. BURNS is important. On a case made rather more favorable for the plaintiffs than the present, but on wrappers and labels the same as those now used by both parties, one question was whether the plaintiff could interdict MCKENZIE and HILL from carrying on the manufacture and sale of thread under the name of J. & T. COATS. The answer is, "This query is attended with difficulty. If MCKENZIE and HILL made use of tickets and wrappers clearly distinguishable from those of the memorialists, we think it would be very difficult for the memorialists to interdict them from making use of the firm name of J. & T. COATS, under which a business has been carried on since 1852, and we could not advise them to take any proceedings with this view."

The opinion was decided as to the imitation of the trade marks being the subject of interdict. It appears, also, that counsel had advised that DAWSON could only be interdicted when he sold the thread with the new emblems, in Great Britain.

In the case of Howe *vs.* Searing, (10 Abbott P. R.,) referred to, the court held that the sale of the good-will of a business did not carry with it the right to use the name of the vendor by the purchaser and his assigns, and the statute making it a misdemeanor to transact business under fictitious names was referred to, as indicating the policy of the State against the use of any but names of persons actually performing the business.

But I cannot see that if all these transactions had taken place in New York, the use of the name of J. & T. COATS could have been brought within the principle of this decision.

The interesting case in the First Chamber of the Imperial Court of Paris respecting the BAJOU glove, corresponds with the case of Clinton *vs.* Douglass, cited in Howe *vs.* Searing; and probably shows the extent to which the law ought to go in protecting the continuation of an individual or firm name, where the persons who gave the business repute are no longer conducting it.

In the French case, BAJOU, the famed maker of gloves, assigned his business to MOREL, who afterwards assigned to CAMPERE, the plaintiff, the same rights. BAJOU had reserved the right to deal in gloves at Grenoble, marked with the stamp of that town. He began to manufacture gloves there, and stamped them with his old mark, and sent them to New York for sale. The tribunal below prohibited BAJOU from employing in future his name as manufacturer's mark of his gloves, which interdict was affirmed on appeal. The court below say. "In assigning, for a certain sum, his good-will to MOREL, BAJOU really assigned all his right to the manufacturer's mark, in which the true value of the business consisted, since it is upon this mark that the custom depended."

In the English case, where the stock, &c., and the good-will of a firm, had been the subject of a sale, the purchasers carried on the business under their own name, adding, "Late JOHN DOUGLASS & Co.

I accede to the proposition, that if a firm composed of persons of the same name with those of another firm had been dealing in the same business, and had become wholly extinct, strangers could not revive it, and stamp their own manufactures with a name which as to them had perished. It is clear, on the other side, that the same article may be manufactured and sold by one of the same name, under the same name, and thus a long reputation may indirectly be infringed upon. BURGESS' case is an example of this, (17 England Eq. R. 257,) and where one member of a former firm and the personal representative of the deceased member are alone, and agree to the use of the firm name, to be stamped upon the article manufactured by others of the same description as were manufactured by themselves during the lifetime of both partners, I am not prepared to say that such a contract and action under it are illegal.

The injunction to be issued must be modified according to these views.

UNPAID PURCHASE MONEY DUE ON ARTICLES OF AGREEMENT.

In the Supreme Court of Pennsylvania.—January, 1860. Before Judge THOMPSON. Springer *vs.* Walters. Error to the Common Pleas of Fayette County.

Unpaid purchase money due on articles of agreement, or to become due within seven years, is not such a *reprize* as an inquest should consider, in determining whether the estate of the vendee will rent for the debt, interest, and costs of the execution beyond all reprizes in seven years.

CALVIN SPRINGER, plaintiff in error and below, had judgment against JONAH WALTERS for $321 49, the only judgment against defendant. A *fi. fa.* issued thereon was levied on the defendant's equitable estate under articles of agreement, in a tract of 109 acres of land. On inquisition and condemnation, and approval thereof, sec. reg. a vend. ex. issued.

Defendant filed exceptions to the inquisition. because the jury took into consideration, as a lien, an alleged balance of purchase money, due under articles of agreement between defendant and one JOHN M. MOORE for the purchase of said tract of land. It appeared that the land would have extended had not this balance been considered a reprize.

The opinion of the court was delivered at Philadelphia.

THOMPSON, J.—The learned judge of the Common Pleas was of opinion, that unpaid purchase money, due on articles between vendor and vendee, was not such a lien as is proper to be laid before a sheriff's inquest, to determine whether the rental of the debtor's estate levied on, will, in seven years, be sufficient, beyond all reprizes, to pay the debt, interest, and costs sought to be collected by the execution. We think in that opinion he was right.

From the passage of the act of 1705, which introduced our present system of extent of lands for debt, up to 1836, is embraced a period of 133 years, and from that time to the present, a period of twenty-three years more. During all that time the books contain no trace of such practice.

It seems to me, that our present system necessarily excludes, by a fair interpretation of its terms, such a practice. The 4th sec. of the act of 1840 provides, "that on application of any creditor, the court may make an order, in case of an extent, describing the manner in which the money arising from the half yearly instalments shall be distributed among the different lien creditors, according to the priority of their liens, in the same manner and with like effect as in case of distribution of money arising from sheriff's sales.

The liens here referred to are generally record liens, and certainly everybody knows, that when the vendee's interest alone is sold on execution, that the purchase money due the vendor is not paid out of the proceeds. The court never directs his lien for the purchase money to be paid, because it is not a lien on the equitable estate but on the legal, by virtue of the title. When the vendor sells upon a judgment for purchase maney, then he is paid according to his priority of lien on the land, both the legal and equitable estates being sold. It is only in this case he becomes a distributee, and this is by reason of his judgment on the entire estate.

The principle of distribution of the proceeds of the equitable estate is the same, whether in sales, or by extent of the land and order of court, by the act cited. In neither case can the vendee's lien be affected, or be entitled to any money in the distribution on account of the legal title. How, then, is his claim to be considered a reprize? Practice, I think, shows that it is not, and the principle of the thing is as stated, that it is not a reprize against the equitable estate, because not a lien against it. The vendor having the security of the legal title in his own hands, the law allows him to use it in accordance with its terms, when he pleases. It does not force him to take satisfaction out of the equitable estate, and compel him to convey the legal. The interest of the vendor, under articles, is a distinct interest from the legal title; it can be bound as such and sold as such, without interfering with the legal estate. This is the constant practice. Inasmuch, therefore, as the vendor's claim cannot come in on the purchase money, I cannot see why it should be made the means of sending to sale property, the proceeds of which could not be applied to its extinguishment.

It would operate hardly, too, other considerations out of the case, on the vendee, to allow a small judgment to draw its aid, the purchase money due or payable within seven years, and condemn the land. It would change the entire system of land sales, by articles of agreement, at once, for a poor man, if there were debts against him, would be almost sure to be sold out, by introducing the purchase money due the vendor as a means of preventing an extent, although neither vendor nor vendee would be benefited, but more likely injured by it; and hence a different system would most likely be resorted to. Again as purchase money due on articles does not stand on the same footing, as to conclusiveness, as debts of record, the amount due would necessarily become a subject of inquiry before the jury. So, too, equities are sometimes required to be adjusted before the exact amount to become due could be ascertained. Such matters would be wholly foreign to the duties of the sheriff's jury, and totally unmanageable by them. These considerations serve to demonstrate the impracticability and impropriety of considering such claims in such a place. Debts in such form are not reprizes within the meaning of the statute. They are mostly record liens of some kind or other, and annuities, rent charges, and the like. Miller *vs.* Campbell, 1 J. 417, and Near *vs.* Watts, 8 W. 319, seem to treat them as such. For these reasons, the decision of the court in setting aside the inquest, is affirmed.

COMMERCIAL CHRONICLE AND REVIEW.

GREAT PROSPECTS—MARKETS ABROAD—CROPS—NO EAGERNESS TO PURCHASE—EXPORTS MORE FREE—EXPORT OF SURPLUS GIVES BETTER PRICE FOR HOME SALES—ABILITY OF THE WEST TO PAY—GOOD CROPS AND SALES ARE MONEY—BANK SOPHISTRIES—THE STATE OF THE WEST—FREIGHTS—TONNAGE—RAILROADS—GRAIN—THE SOUTH—COTTON—CORN—NEW YORK AND NEW ORLEANS—VALUE OF COTTON CROP—THE MARKETS OF EUROPE—FREE CORN AND FREE SHIPS IN FRANCE—RISE IN FREIGHTS TO LIVERPOOL—RISE IN STOCKS—HIGHER VALUE FOR SHIPS—SECURITIES—AGRICULTURE—MONEY RATES OF—DECLINE—NEW LOANS—STERLING BILLS—SMALL DEMAND—EXPORT OF SPECIE—GOLD DOLLARS—ASSAY-OFFICE—UNITED STATES MINT—NEW ORLEANS MINT—GOLD FOR EUROPE.

THE crop year opens with the highest promise of abundance in quantity, of all food and raw materials, and of fair prices for them at home and abroad. The aspects of the markets in Europe now for breadstuffs is such as to induce the belief of much higher prices than have ruled in the past year. The quantity of the crops, on the other hand, is reported so large that a very great demand would be required to make much impression upon it. The circumstances are, therefore, not such as to induce the investment of much capital in produce for a rise. This is a fortunate circumstance, since the export of the surplus will not be delayed by any attempt at holding, or a fictitious rise in the prices. The surplus moves freely to market at current prices, and thus pours out of the country to the relief of that which remains. The freights on the lakes and Western waters have risen rapidly under the influx of grain, and the rise in freight has come off the price of wheat at the other end of the route. Under these circumstances the great demand for money that usually takes place when there is prospect of a rapid rise in prices under an export demand is not experienced; but, on the other hand, the regular flow of produce eastward, in payment of bills and discharge of debts, causes a great abundance of money. The produce of the West is money in fact. It is the medium in which her debts are discharged. The shipment of grain to the eastward forms the basis of the bills that are in demand for remittance in discharge for debts and the payment of goods, and those

bills are money. Many of the theorist on banking are profound upon the ratio of specie to liabilities, the proportion of specie on hand, and the amount of discounts; but all these are solved in the one important question:—has the debtor section got the means of paying? When the crops have failed, all the theories that can be formed, and all the legal provisions that can be entered on the statute books, will not help the creditor or reduce the balance on the wrong side of the ledger. The bank that holds a long line of paper made by persons whose means depended upon a crop that never ripened, cannot be helped by theorizing on the proportion of specie it ought to have held to its liabilities; on the other hand, if the crop matures well and sells satisfactory, the line of discounts will be met whether there is specie or not on hand. The demand for loans at such times will by no means equal the means of the institution. This is the case this year. The West, which in 1857, was suddenly by panic deprived of the means that for so many years had been liberally poured into it for railroads and land speculations, and lost its crops at the same time, struggled hard to pay in the two years that followed. The effort was to get capital back from the West at all hazards. Neither land nor railroads, in which so much money had been placed, could be exported East, and the crops were small, while no export demand existed to make the surplus available. The railroads had no freights, and the tonnage of the lakes being almost idle, a good deal left for the ocean service, and all the interests were much depressed. The recovery has now come. The utmost wishes of the agriculturists are met in the abundant crops, and the tonnage of the lakes was never more profitably employed than now, while every railroad shows growing recovery under the volume of grain that passes eastward. The receipts of grain at Chicago and Milwaukee are as follows from January to September:—

	1859.	1860.
Chicago.....bushels	8,111,237	20,428,298
Milwaukee.....	2,011,000	3,101,000
Total.....	10,122,237	23,529,298

This gives a value of nearly $15,000,000, or about $10,000,000 in excess over last year, from the extreme end of the lakes, at points where it has been gathered by the railroads from the large circle of country which concentrates at those points. The busy railroads have shown a considerable increase in revenues consequent upon the flow of grain. The Illinois Central has increased its freight receipts 50 per cent over last year, and it has become the great motor for corn, as well from the interior to Chicago as from the Upper Mississippi to the Southern waters, where a large business is to be done in supplying the South with corn, for which, unhappily, this year she must depend upon the West to a considerable extent. This Southern demand is an opportune opening for the Western supplies. They are a corn-consuming people, and the quantities they must require will far exceed that of any foreign demand, and will equalize a little of the wealth which the South has accumulated in the last few years. The trade at New Orleans, as seen on another page, gives a most satisfactory result, as does that at all the Southern ports, Mobile and Charleston particularly. The exports from New Orleans and New York compare as follows:—

IMPORTS.

	1858.	1859.	1860.
New Orleans	$19,586,013	$17,106,201	$20,634,393
New York	171,473,336	220,247,307	233,718,718
Total	$191,059,349	$237,353,508	$254,353,111

EXPORTS.

	1858.	1859.	1860.
New Orleans	$88,382,438	$101,634,952	$108,393,567
New York	100,667,890	106,443,541	138,036,560
Total	$189,050,328	$208,078,493	$246,430,127

The figures run very high from these two ports, exceeding by $34,000,000 those of the same period last year, while the imports are not in so large a proportion. The exports from New Orleans have been mostly increased by the large cotton crop, which has also swollen the exports of the other Southern ports. The value of the whole cotton crop of the country, 4,675,770 bales, at the New Orleans average per bale, will be $230,000,000, of which $191,806,555 will have been exported. On another page will be found the annual cotton statement of the New York *Shipping List* in full.

The French imperial government last year reimposed the duties on corn, which had for some years been suspended, to take date from the 1st September. This year the *Moniteur*, of August 23d, contained a decree removing the duty, by which this sliding scale has been altogether suspended. The decree enacts that grain imported by land or by sea, in French or foreign vessels, shall, wherever they may come from, only pay, up to the 30th of September, 1861, the minimum of duties fixed by the law of the 15th April, 1832; also, that vessels laden with grain and flour shall be exempt from tonnage dues; and, finally, that vessels so laden leaving any foreign port at any date previous to the said 30th September, 1861, shall only pay the said minimum, and shall be free from tonnage dues. The minimum referred to, is 25 cents the hectolitre, (about 2¾ bushels.) Consequently, while France in the years 1858 and 1859 sent more wheat—2,014,923 quarters—and more flour—4,316,435 cwt.—to England than any other country, it will now seriously compete with England in the purchase of grain in the foreign markets—the provisional suspension of the French sliding scale affording the wanted facilities for such competition. The two main markets of supply which both England and France find themselves limited to are the United States and Southern Russia. In regard to the latter country, the news as to the state of the harvest is of the most contradictory character. On the one hand, it is asserted that the harvest is most plentiful; on the other, that heavy rains and high floods having damaged the crops in all parts of the Empire, the roads and corn-fields of the southern provinces had been greatly devastated by locusts, a scourge which made its first appearance in Bessarabia.

The prospect of a large demand for grain in free ships thus opens the door to a large employment of vessels, and such an employment will come very opportunely for an interest which has been so depressed as that of shipping in the last two years. The lake tonnage and the Western grain interest already feel the demand, and Atlantic freights have risen 40 per cent in sixty days; that is to say, flour to Liverpool was 2s. 6d. in July, and 4s. first week in September. All

that class of property has become active. The frontier of the West, and the restored facility of the railroads to procure good freights, has had an important influence upon the stock market. Most descriptions have undergone an important advance. The values of the leading stocks on the New York market were as follows:—

	July 6.	Sept. 8.	Gain.		July 6.	Sept. 8.	Gain.
Illinois Central....	63½	87	23½	Chicago and Rock Is.	71½	80	8½
N. Y. "	82	85	3	Michigan Southern.	30	50	20
Erie	19	30	11	Hudson River.....	48	58	10
Galena and Chicago	64	80	16	Reading.....	41	48	7

These stocks represent nearly $150,000,000, and they indicate the advance in money value which has taken place in the whole. The effect of this is to make available an immense amount of property which has been comparatively dead during the past two or three years. The revival of value in these large interests causes a greater circulation of capital and promotes the apparent abundance of money. This subsides from the temporary rise that manifested itself in August:

	On call.		Indorsed		Single names.	Other good.	Not well known.
	Stocks.	Other.	60 days.	4 a 6 mos.			
Jan. 1st, 1859.	4 a 4½	4 a 5	4 a 5	5 a 6	6 a 7	7 a 8	8 a 10
Feb. 1st.....	5 a 6	6 a 7	5 a 6	6 a 7	7 a 7½	8 a 9	9 a 10
Mar. 1st.....	4 a 5	4½ a 6	4½ a 5½	5½ a 6½	6 a 7	7 a 8	9 a 10
Apr. 1st.....	4 a 5	5 a 6	5 a 5½	6 a 6½	6½ a 7	8 a 9	9 a 10
May 1st.....	5 a 6	6 a 7	6 a 6½	6½ a 6	7 a 9	9 a 10	10 a 12
Jun. 1st.....	6 a 7	7 a 8	6½ a 7	7 a 8	8 a 9	9 a 10	10 a 12
July 1st.....	5 a 6	6 a 7	6½ a 7	7 a 7½	8 a 9	10 a 12	12 a 15
Aug. 1st.....	6 a 7	7 a 8	6½ a 7½	7 a 8	8 a 9	11 a 13	12 a 15
Sept. 1st.....	5½ a 6	7 a 8	6 a 7	7 a 7½	8 a 8½	11 a 14	12 a 16
Oct. 1st.....	5½ a 7	6 a 7	6½ a 7	7 a 8	8 a 9	10 a 12	12 a 18
Nov. 1st.....	5 a 5½	6 a 7	6½ a 7½	7½ a 8	8½ a 9½	12 a 15	12 a 18
Dec. 1st.....	5 a 5½	6 a 7	6 a 7	7 a 8½	8 a 9	9 a 10	12 a 18
Dec. 17th.....	5½ a 6	6 a 7	7 a 7½	7½ a 8½	8 a 9	9 a 10	12 a 18
Jan. 1st, 1860..	6 a 6½	6½ a 7	7 a 7½	7½ a 8½	7½ a 8	9 a 10	12 a 18
Jan. 15th.....	7 a 7½	7 a 7½	8½ a 9	9 a 9½	9 a 10	10 a 11	15 a 20
Feb. 1st.....	6 a 6½	7 a 7½	8½ a 9	9 a 9½	9 a 10	11 a 12	15 a 20
Feb. 15th.....	5 a 6	6 a 7	7 a 7½	7½ a 8	8½ a 9½	10 a 12	15 a 18
Mar. 1st.....	5½ a 6	6 a 7	7 a 7½	7½ a 8	8½ a 9½	10 a 12	15 a 18
Mar. 15th.....	5 a 5½	5½ a 6	6 a 7	7½ a 8	8½ a 9½	10 a 12	15 a 18
Apr. 1st.....	5 a 5½	6 a 6½	5½ a 6	6 a 6½	5½ a 7½	9 a 10	11 a 13
Apr. 15th.....	5 a 5½	6 a 6½	5½ a 6	6 a 6½	6½ a 7½	9 a 10	11 a 13
May 1st.....	5 a 5½	6 a 6½	5 a 6	6 a 6½	6½ a 7½	9 a 10	11 a 12
May 15th	5 a 6	6 a 6½	5 a 6	6 a 7	6½ a 7½	9 a 10	10 a 12
June 1st.....	4½ a 5	6 a 6½	5 a 6	6 a 7	6½ a 7½	8 a 9	9 a 10
June 15th	4½ a 5	5 a 6	4½ a 5	5 a 5½	5½ a 6	6 a 7½	8 a 9
July 1st.....	5 a 5½	5½ a 6	.. a 5	5 a 6	5½ a 6	7 a 7½	8 a 9
July 15th.....	5 a 5½	5½ a 6	.. a 5	5 a 6	5½ a 6	7 a 7½	8 a 9
Aug. 1st.....	5 a 6	6 a 7	5 a 6	6 a 6½	6½ a 7	7½ a 8½	9 a 10
Aug. 15th.....	5½ a 6	6 a 7	6 a 6½	6 a 7	6½ a 7½	8 a 9	9 a 10
Sept. 1st.....	6 a 7	7 a 9	6½ a 7	7 a 9	8 a 9	9 a 12	12 a 24
Sept. 15th.....	6 a 7	6½ a 7	7 a 7½	7½ a 8	6½ a 7½	9 a 9½	10a10½

The improved operations in the stock market caused some demand for money for the moment, but there was no permanent effect. There was nothing then to cause any demand for money or capital. A New York Central Park loan for $250,000, 6 per cent, redeemable in 1876, was taken at 3.14 per cent premium. The State of Ohio offers for a loan of $6,000,000, to meet a loan falling due, and the Secretary of the Treasury has issued proposals for $10,000,000 in a 5 per cent stock, payable in ten years, according to the act of Congress of June 23d, authorizing a loan for the redemption of the treasury notes outstanding.

No offer below par will be accepted, and the bids will be opened October 22. The present quotation for a United States 5 per cent stock is 103¼.

The advance of the season showed a growing ease in the market. Notwithstanding the prospect of a large export of cotton and corn, there is nothing in the immediate state of those markets to attract investments for speculation. The ease in the markets that has prevailed so long has kept the importations well paid up, and the rates of bills are getting lower:—

RATES OF BILLS IN NEW YORK.

	London.	Paris.	Amsterdam.	Frankfort.	Hamburg.	Berlin.
Jan. 1..	9 a 9⅛	5.18¾ a 5.17½	41⅝ a 41⅝	41¾ a 41⅞	36½ a 36⅝	73 a 73½
15..	8½ a 9	5.21½ a 5.18¾	41½ a 41½	41½ a 41½	36⅜ a 36⅝	73¼ a 73½
Feb. 1..	8⅞ a 9	5.18¾ a 5.17½	41½ a 41½	41⅜ a 41¾	36⅜ a 36⅝	73⅜ a 73⅝
15..	8½ a 9	5.18¾ a 5.17½	41⅜ a 41½	41½ a 41⅝	36½ a 36½	73⅜ a 73½
Mar. 1..	8⅝ a 9	5.17½ a 5.15	41½ a 41¾	41¾ a 41⅞	36½ a 36⅞	73⅝ a 73⅞
15..	8⅝ a 8⅞	5.17½ a 5.15⅝	41⅜ a 41¾	41⅜ a 41¾	36⅜ a 36¾	73½ a 73⅝
Apr. 1..	8⅝ a 8⅞	5.18¾ a 5.16¼	41½ a 41⅝	41½ a 41⅝	36⅜ a 36¾	73½ a 73⅝
15..	8⅝ a 8⅞	5.16¼ a 5.17½	41⅜ a 41½	41⅜ a 41¾	36½ a 36¾	73½ a 73⅝
May 1..	9¼ a 9½	5.13¼ a 5.12½	41½ a 41¾	41⅞ a 42	36¾ a 36⅞	73½ a 73¾
15..	9⅜ a 9½	5.13¾ a 5.13¼	41⅝ a 41⅞	41⅞ a 42	36¾ a 37	73¾ a 73⅞
Jun. 1..	9⅜ a 9½	5.13¼ a 5.12½	41¾ a 41⅞	41⅞ a 42	37 a 37⅛	73¾ a 73⅞
15..	9¼ a 9⅜	5.13¾ a 5.12½	41⅜ a 41¾	41⅞ a 42	36¾ a 37⅛	73⅜ a 73⅞
July 1..	9¼ a 9⅜	5.13¾ a 5.13¼	41⅝ a 41¾	41⅞ a 42	36¾ a 37	73¾ a 73⅞
15..	9¼ a 9⅞	5.13¾ a 5.13¼	41⅛ a 41¾	41⅜ a 41⅞	36¾ a 37	73¾ a 73⅞
Aug. 1..	9⅜ a 9⅞	5.13¾ a 5.13¼	41⅝ a 41¾	41⅞ a 42	36¾ a 37	73¾ a 73⅞
15..	9⅝ a 10	5.13¾ a 5.13¼	41¾ a 41⅞	41⅞ a 42	36⅞ a 37⅛	73¾ a 73⅞
Sep. 1..	9¾ a 10	5.14⅜ a 5.13¼	41⅝ a 41⅞	41⅞ a 42	36⅞ a 37	73⅜ a 73¾
15..	9¾ a 9⅞	5.14⅜ a 5.13¼	41⅝ a 41¾	41¾ a 42	36⅜ a 36⅞	73⅜ a 73⅞

The export of specie continues well sustained, and already there is some uneasiness abroad at the prospect of a drain upon England and France for specie to meet the corn importation. The drains for this purpose in 1853–4 was large, but at that time it was ascribed to the Russian war. It is to be borne in mind, however, that the drain upon America must cease at a certain point, since after debts are paid it can be kept up only upon the operation of credits. The specie exports have been comparatively as follows:—

GOLD RECEIVED FROM CALIFORNIA AND EXPORTED FROM NEW YORK WEEKLY, WITH THE AMOUNT OF SPECIE IN SUB-TREASURY, AND THE TOTAL IN THE CITY.

	1859.		1860.			
	Received.	Exported.	Received.	Exported.	Specie in sub-treasury.	Total in the city.
Jan. 7.....	.....	$1,052,558	.....	$85,080	$7,737,965	$25,600,699
14.....	$1,376,300	218,049	1,788,666	88,482	7,729,646	26,470,512
21.....	.....	567,398	.....	259,400	8,352,485	27,585,970
28.....	1,210,713	467,694	1,760,582	81,800	8,957,128	29,020,862
Feb. 4.....	.....	606,969	94,569	427,457	9,010,569	28,984,870
11.....	1,819,923	861,550	1,476,621	92,850	9,676,732	29,464,299
18.....	.....	1,013,780	.....	592,997	10,012,572	30,603,762
26.....	1,287,967	358,554	1,393,179	202,000	8,955,203	29,729,199
Mar. 3.....	.....	1,427,556	382,503	667,282	8,734,028	31,820,840
10.....	933,180	807,106	1,198,711	115,473	8,237,909	30,139,089
17.....	.....	870,578	152,000	429,260	8,099,409	31,271,247
24.....	.....	208,955	895,336	465,115	8,122,672	31,408,876
31.....	1,032,314	1,343,059	155,110	706,006	8,026,492	31,447,251
Apr. 7.....	.....	576,107	.....	310,038	7,562,885	30,162,017
14.....	1,404,210	1,637,104	1,146,211	630,010	7,714,000	31,640,982
21.....	.....	1,496,889	.....	241,503	7,531,483	30,764,897
28.....	1,723,352	1,680,743	1,455,337	1,774,767	7,668,723	30,848,532
May 5.	.....	2,169,197	.....	2,355,117	7,041,143	30,856,889
12.....	1,480,115	1,926,491	1,382,758	533,881	6,539,414	29,319,801
19.....	.....	2,223,578	.....	1,251,177	6,864,148	30,599,341

	1859.		1860.			
	Received.	Exported.	Received.	Exported.	Specie in sub-treasury.	Total in the city.
26.....	1,938,669	5,126,648	1,519,703	1,317,773	6,982,660	30,414,433
June 2.....	.....	2,325,972	.....	1,719,138	6,621,100	31,196,557
9.....	1,513,978	1,877,294	.....	1,542,466	6,620,622	30,406,203
15.....	.....	1,669,263	1,385,552	2,526,478	6,426,755	30,537,000
22.....	.....	1,620,731	.....	1,417,757	6,326,894	29,677,815
29.....	2,041,237	1,861,163	1,541,580	1,962,776	6,253,357	28,717,607
July 9.....	.....	1,398,885	... .	1,166,773	5,187,468	27,989,162
14.....	1,736,861	2,495,127	1,514,884	1,283,135	5,404,367	28,156,061
21.....	.....	2,030,220	673,290	1,624,280	5,432,789	28,876,433
28.....	2,145,000	2,344,040	.....	1,880,497	5,112,942	28,212,668
Aug 4.....	.....	1,284,855	988,676	1,739,259	5,559,922	27,688,011
11.....	1,860,274	1,505,389	1,006,283	1,357,198	5,732,534	27,312,274
18.....	.....	1,594,933	.....	2,183,281	5,902,350	26,911,000
25.....	2,126,332	1,584,879	798,882	1,780,696	5,985,545	26,105,279
Sept. 1.....	*962,030	509,649	950,000	1,302 266	5,607,627	24,642,700
8.....	2,046,606	2,363,385	.....	1,198,893	5,333,650	.....
Total.....	28,138,281	52,195,712	23,640,799	36,439,427	.....	.....

Although the aggregate was not as large as last year, yet the export for the four weeks ending September 8 were much larger. The exports from Boston for the month of August amounted to $271,000, making an aggregate since January of $1,497,956, against $4,953,625 same period of 1859. The Sub-treasurer sent, September 10. $1,250,000 gold dollars from New York to Philadelphia to have them coined into double-eagles for export. Those coins were never popular, and the multiplication of silver change causes them to be less wanted. The New York assay-office, for the month, has operated as follows :—

NEW YORK ASSAY-OFFICE.

	Foreign.				United States.			Payments in	
	Gold.		Silver.			Silver.			
	Coin.	Bullion.	Coin.	Bullion.	Gold.	Coin.	Bullion.	Bars.	Coin.
Jan.	14,000	18,000	11,200	14,000	2,478,000	1,800	20,000	647,000	1,910,000
Feb.	5,000	28,000	6,500	24,000	951,000	....	7,500	932,000	90,000
Mar.	8,000	15,000	23,400	5,500	267,000	1,100	2,500	180,000	142,500
Apr.	8,000	32,000	14,500	10,000	183,000	3,700	3,800	187,000	70,000
May	11,200	20,800	25,500	18,000	176,000	7,000	16,500	230,000	45,000
June	12,000	19,000	10,000	4,000	147,000	1,750	2,750	158,000	38,500
July	9,500	18,000	12,800	8,000	159,500	1,200	3,000	140,000	72,000
Aug.	12,000	14,000	16,000	14,100	208,000	1,000	3,900	190,000	79,000
Tot.	79,700	168,800	119,900	97,600	4,569,500	17,550	61,950	2,664,000	3,747,000
'59	79,000	82,000	314,780	61,900	2,398,600	12,900	33,920	2,344,000	955,100

The operations for the month did not vary much, although the United States mint at Philadelphia was closed for repairs during the month. The deposits there were about the same as usual, as follows :—

UNITED STATES MINT, PHILADELPHIA.

	Deposits.		Coinage.			
	Gold.	Silver.	Gold.	Silver.	Cents.	Total
January.....	$200,000	$41,000	$1,024,563	$41,000	$24,000	$1,090,568
February.....	1,838,578	35,573	1,632,160	21,600	24,000	1,677,760
March	144,478	82,255	317,451	132,989	29,000	479,440
April.....	281,891	49,764	252,756	38,431	30,000	321,188
May.....	90,828	72,468	133,004	81,100	35,000	249,104
June.....	54,893	54,676	63,718	97,160	24,000	184,878
July	97,041	14,181	101,975	87,000	16,660	205,635
August	132,133	22,741		No coinage.		
Total, 1860.	$3,659,839	$382,688	$3,425,627	$499,186	$182,660	$4,820,573
Total, 1859.	942,230	610,550	836,876	710,987	224,000	3,324,243

* From New Orleans.

The operations at the mint at New Orleans, for the year ending July 31, were as follows :—

		Coinage.			
			Silver.		
	Deposits.	Gold.	Coin.	Bars.	Total.
1859.....	$3,145,880	.....	.....	.....	$3,578,996
1860.....	1,472,446	$154,000	$1,438,000	$29,209	1,621,200

This shows a decline of $1,957,787 in the coinage of the year. The supply of the metals now in the country is considerable, and probably ample for the wants of business. The state of affairs in Europe is such that, with the apprehensions of war and the uncertainty that attends the settlement of Italy, gold may be the last article, next to food, to export. The means of paying for coin, corn, and cotton must be large, however, to meet the exigencies of the case.

The Custom-house returns for the month of August show a larger import than for the corresponding month of either of the previous four years, and notwithstanding this large increase, there has been no accumulation in bond :—

FOREIGN IMPORTS AT NEW YORK IN AUGUST.

	1857.	1858.	1859.	1860.
Entered for consumption.....	$14,401,018	$15,067,732	$18,416,207	$19,564,675
Entered for warehousing	4,516,039	2,146,021	2,964,044	4,182,764
Free goods.....	2,052,122	2,342,741	2,920,921	2,050,665
Specie and bullion	17,319	67,682	348,419	140,750
Total entered at the port.....	$19,986,498	$19,624,176	$24,649,591	$25,938,854
Withdrawn from warehouse	5,624,147	3,116,013	3,296,084	3,825,105

The total imports at the port of New York, since January 1, are less than for the corresponding total of last year, but $68,000,000 more than for the total of the first eight months of 1858. The warehouse operation shows an increase of $8,000,000 in bond :—

FOREIGN IMPORTS AT NEW YORK FOR EIGHT MONTHS, FROM JANUARY 1ST.

	1857.	1858.	1859.	1860.
Entered for consumption.....	105,681,632	$65,401,911	131,927,230	118,270,269
Entered for warehousing.....	51,427,670	17,331,440	26,173,802	29,560,141
Free goods	13,782,200	15,298,266	21,350,052	19,816,231
Specie and bullion	5,874,629	1,882,940	1,649,501	891,938
Total entered at the port.....	176,716,131	$99,914,557	181,100,585	168,538,579
Withdrawn from warehouse.....	29,240,228	28,102,515	17,406,868	21,254,755

The proportion of the whole imports which is embraced under the head of dry goods, shows for the month of August a decline, being the reverse of last year's business. The aggregate for the month has been larger than for any year to 1859, but the quantity put upon the market does not show the same results :—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR THE MONTH OF AUGUST.

ENTERED FOR CONSUMPTION.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	$3,243,227	$4,812,916	$5,250,619	$4,289,201
Manufactures of cotton.....	1,334,473	1,789,745	2,154,979	1,292,409
Manufactures of silk	2,758,097	3,526,725	4,864,855	4,497,283
Manufactures of flax.....	564,507	889,927	997,540	594,933
Miscellaneous dry goods.....	631,816	613,826	932,431	874,167
Total.....	$8,532,120	$11,083,139	$14,200,354	$11,547,993

WITHDRAWN FROM WAREHOUSE.

	1857.	1858.	1859.	1860.
Manufactures of wool	$796,631	$911,951	$989,517	$540,025
Manufactures of cotton	229,041	204,568	188,039	214,926
Manufactures of silk	511,045	305,353	142,475	171,271
Manufactures of flax	188,023	202,568	113,755	89,245
Miscellaneous dry goods	45,656	84,643	42,720	47,056
Total	$1,770,396	$1,709 083	$1,476,506	$1,062,523
Add entered for consumption	8,532,120	11,083,139	14,200,354	11,547,993
Total thrown upon market	$10,302,516	$12,792,222	$15,676,860	$12,610,516

ENTERED FOR WAREHOUSING.

	1857.	1858.	1859.	1860.
Manufactures of wool	$380,041	$239,236	$380,120	$339,783
Manufactures of cotton	120,505	105,683	236,627	269,711
Manufactures of silk	218,164	73,243	141,549	111,155
Manufactures of flax	78,096	54,270	121,655	60,540
Miscellaneous dry goods	136,799	18,969	66,602	32,303
Total	$933,605	$491,401	$946,553	$813,492
Add entered for consumption	8,532,120	11,083,139	14,200,354	11,547,993
Total entered at the port	$9,465,725	$11,574,540	$15,146,907	$12,361,485

The total imports of foreign dry goods at the port of New York, since January 1st, are $10,000,000 less than for the corresponding eight months of last year, but larger than for the previous years. The quantity put upon the market shows the same results:—

IMPORTS OF FOREIGN DRY GOODS AT THE PORT OF NEW YORK, FOR EIGHT MONTHS, FROM JANUARY 1ST.

ENTERED FOR CONSUMPTION.

	1857.	1858.	1859.	1860.
Manufactures of wool	$17,648,469	$11,980,604	$26,369,976	$23,948,703
Manufactures of cotton	12,927,582	6,676,304	18,004,221	11,906,656
Manufactures of silk	20,563,139	12,381,859	25,478,077	26,491,407
Manufactures of flax	4,669,025	2,955,195	7,474,910	4,884,292
Miscellaneous dry goods	5,052,091	2,896,258	4,185,036	4,302,359
Total	$60,860,306	$36,890,220	$81,512,220	$71,533,417

WITHDRAWN FROM WAREHOUSE.

	1857.	1858.	1859.	1860.
Manufactures of wool	$4,484,294	$3,518,346	$2,260,921	$2,444,682
Manufactures of cotton	2,631,058	3,151,898	1,308,321	2,087,538
Manufactures of silk	2,755,533	2,887,009	719,331	1,299,176
Manufactures of flax	1,316,035	1,746,616	770,699	652,371
Miscellaneous dry goods	637,687	1,028,634	313,870	439,782
Total	$12,825,552	$12,332,503	$5,378,142	$6,923,549
Add entered for consumption	60,860,306	36,390,220	81,512,220	71,533,417
Total thrown on market	$73,685,858	$48,722,723	$86,885,362	$78,456,956

ENTERED FOR WAREHOUSING.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	$5,729,871	$1,731,492	$2,700,241	$2,762,060
Manufactures of cotton	2,623,091	1,547,538	1,148,549	1,962,608
Manufactures of silk	4,207,627	988,141	667,047	1,266,116
Manufactures of flax	1,536,725	649,280	559,242	362,053
Miscellaneous dry goods	1,224,398	437,277	342,592	465,574
Total.....	$15,321,712	$5,353,678	$5,417,671	$6,818,411
Add entered for consumption ...	60,860,306	36,390,220	81,512,220	71,456,966
Total entered at the port...	$76,182,018	$41,743,898	$86,929,891	$78,275,377

The exports from New York to foreign ports show an increase in specie, which has even exceeded the exports of 1859 or of 1857; while the exports of domestic produce exceed those of any previous year in the history of the port:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE MONTH OF AUGUST.

	1857.	1858.	1859.	1860.
Domestic produce	$4,289,479	$4,660,272	$5,150,710	$8,012,814
Foreign merchandise (free).....	393,882	102,674	374,707	76,083
Foreign merchandise (dutiable)....	654,088	224,438	790,646	191,270
Specie and bullion.....	6,271,717	2,201,802	6,409,783	7,464,813
Total exports.....	$11,609,166	$7,189,186	$12,725,846	$15,934,900
Total, exclusive of specie....	5,337,449	4,987,384	6,316,063	8,480,087

This leaves the exports from New York to foreign ports, exclusive of specie, for the first eight months of the current year, $16,271,527 above the corresponding total of last year. The exports of specie show a decrease of $14,000 000 upon the total of the year 1859, and $2,300,000 higher than even in 1857. The total exports have reached a very high figure; of these domestic produce never before was so large:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR EIGHT MONTHS, FROM JANUARY 1.

	1857.	1858.	1859.	1860.
Domestic produce.....	$43,014,815	$38,012,626	$38,524,357	$54,294,389
Foreign merchandise (free).....	2,709,756	955,698	2,139,807	1,986,507
Foreign merchandise (dutiable)..	3,538,044	2,782,282	3,812,536	3,516,331
Specie and bullion.....	32,298,156	17,363,257	49,658,774	35,598,550
Total exports.....	$81,560,771	$59,113,863	$93,135,474	$95,345,777
Total, exclusive of specie....	49,262,615	41,750,606	43,476,700	59,747,227

The cash revenue for August shows a large increase compared with last year, but the total is less as compared with 1857:—

CASH DUTIES RECEIVED AT NEW YORK.

	1858.	1859.	1860.
First six months	$11,089,112 57	$19,912,181 99	$18,389,679 00
In July.....	3,387,305 33	4,851,246 89	4,504,066 00
In August	3,545,119 01	4,243,010 43	4,496,243 00
Total since Jan. 1st....	$18,021,536 91	$28,606,439 31	$27,389,988 00

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

BOSTON VALUATION.

The taxable valuation of the twelve wards of the city of Boston for the two last years present results as follows:—

	1859.			1860.		
Wards.	Real estate.	Personal estate.	Polls.	Real estate.	Personal estate.	Polls.
1.....	8,168,400	2,834,000	3,548	7,673,300	2,850,200	3,554
2.....	5,463,500	532,500	3,530	5,380,300	696,300	3,510
3.....	6,806,500	2,938,800	2,121	6,905,700	3,220,200	2,220
4.....	37,840,500	36,624,700	3,159	38,319,300	36,758,500	3,179
5.....	5,829,300	2,300,000	2,247	5,582,700	2,288,700	2,200
6.....	26,202,800	20,871,500	1,999	27,453,800	23,299,800	2,245
7.....	16,426,300	21,318,700	2,316	16,573,700	23,733,800	2,561
8.....	11,228,000	4,583,600	2,121	11,696,700	4,937,900	2,170
9.....	8,569,700	3,069,200	2,086	8,760,200	3,182,000	1,993
10.....	7,838,500	2,592,700	2,612	7,467,600	2,689,700	2,189
11.....	16,812,500	5,040,500	3,840	19,403,100	6,818,400	4,158
12.....	8,224,900	2,310,900	3,877	8,640,200	2,507,900	4,200
Total	158,410,900	105,018,100	33,456	163,856,700	112,483,200	34,179

	1859.	1860.
Total valuation	$263,429,000 00	$276,339,900 00
Tax raised.....	2,500,000 00	2,530,000 00
Tax rate per $1,000.....	9 70	9 30

From this table it will be seen that in only one ward (fifth) is there a decrease of both personal and real estate. In wards 1, 2, and 10 there is a decrease in real estate, but an increase of personal. The largest decrease in any ward is in ward 1, $480,100. The largest increase is in ward 11, $4,368,500. Ward 6 comes next, with $3,679,100. In ward 8 the increase is a little over $900,000; in ward 12, $612,300; in ward 10 the decrease of real overcomes the increase of personal by $281,400. Ward 9 makes a gratifying increase of $303,306.

A part of this increase is in buildings upon the new made land of the Back Bay. Ward 7 shows as yet but a small increase of real but adds to her personal the sum of $2,415,100. On the whole the aspect of affairs is gratifying —a marked increase of property, and though many improvements have been carried forward, a decrease in the rate of taxation.

The comparative relation in Boston and New York for some years has been as follows:—

	1844.	1856.	1858.	1860.
Boston	$110,046,000	$249,162,500	$254,714,100	$276,339,900
New York.....	236,727,143	511,740,491	531,222,642	552,008,742

BANK OF THE STATE OF INDIANA.

The returns of the Bank of the State of Indiana has been as follows:—

	Discounts.	Specie.	Circulation.	Deposits.
January, 1860.....	$6,213,659	$1,411,500	$4,386,913	$834,189
March, "	6,742,270	1,652,323	5,011,769	1,200,856
July, "	6,281,415	1,667,263	4,586,053	942,503

Of the discounts three-fourths were bills of exchange.

BANKS OF WISCONSIN.

The official returns of the Wisconsin banks are as follows at certain dates :—

	No. of banks.	Securities.	Circulation.
January, 1858	66	$3,626,468	$2,913,071
" 1859	98	5,114,415	4,695,170
" 1860	105	5,031,504	4,429,855
July, 1860	105	4,636,367	4,135,218

Twenty-three banks are winding up; their outstanding circulation is $53,418, for the redemption of which specie is held in trust to the amount of $53,421. The statement is brought down to July 1st.

The securities held for account of these institutions were as follows :—

Wisconsin 6 per cent bonds..		$100,000	Illinois	6's	515,000
Racine and Mississippi Railroad, 8's		27,000	Iowa	7's	10,000
Milwaukee and Watertown Railroad, 8's		30,000	Indiana	5's	70,000
			Kentucky	6's	23,000
Minnesota	8's	56,000	Louisiana	5's	10,000
N. Carolina	6's	456,000	"	6's	140,000
Ohio	6's	231,000	Missouri	6's	1,503,000
Tennessee	6's	691,000	Michigan	6's	205,000
Virginia	6's	179,000	Total		$4,546,200
"	5's	9,000	Specie		90,167
California	7's	213,000			
Georgia	6's	25,000			$4,636,367
"	7's	20,000			

Missouri 6's are one-third of the whole amount.

THE CLEARING-HOUSE.

The largest amount of exchanges at the New York Clearing-house in any one day, was March 19, 1857, $40,515,703; for any one week, was the week ending May 4, 1857, $186,484,776. The heaviest year was that ending October 1st, 1857, $8,333,226,718. The *Bankers' Magazine* remarks:—

The smallest amount of exchanges in any one day was October 30th, 1857, $7,867,674; for any one week, the week ending November 2, 1857, $57,663,026.

In London the Clearing-house, in 1839, had already attained such effitiency, that for the annual liquidation of £950,000,000 sterling, or £3,000,000 daily, it only required on an average each day, £200,000 in sovereigns, or rather in bank notes. At present, with a mass of transactions amounting to £1,500,000,000, or £4,500,000 sterling daily, instead of a proportionate addition to the £200,000 required for the daily balance being necessary, *not a shilling is wanted;* the Clearing-house now dispenses completely with the use of bank notes; all is settled by the transfer of sums from one account to another in the books of the Bank of England.

This plan might be successfully adopted here. Instead of sending $1,200,000 in cash and certificates daily to the Clearing-house, as at present, to discharge balances, specie checks on the deposit bank would obviate all the risk and labor of counting this money every day. The London bankers have the advantage of us in this instance, and perform their exchanges of six millions sterling per day without the intervention of bank notes or coin, thus avoiding unnecessary labor, loss of time, and all risk of transmission to and from the place of payment.

CITY WEEKLY BANK RETURNS.

NEW YORK BANK RETURNS.—(CAPITAL, JAN., 1860, $69,333,632; 1859, $68,050,755.)

	Loans.	Specie.	Circulation.	Deposits.	Average clearings.	Actual deposits.
Jan. 7	124,597,663	17,863,734	8,539,063	97,493,709	22,684,854	74,808,855
14	123,582,414	18,740,866	8,090,548	99,247,743	23,363,980	75,883,763
21	123,845,931	19,233,494	7,880,865	99,644,128	22,813,547	76,830,581
28	123,088,626	20,063,739	7,760,761	98,520,793	21,640,967	76,879,826
Feb. 4	124,091,982	19,924,301	8,174,450	99,476,430	21,898,786	77,577,694
11	123,336,629	19,787,567	8,185,109	98,146,463	21,674,908	76,471,055
18	124,206,031	20,591,189	8,050,001	100,387,051	22,061,811	78,325,240
25	124,398,239	20,773,896	7,928,595	100,622,481	22,151,504	78,470,977
Mar. 3	125,012,700	23,086,812	8,165,026	103,663,462	22,787,290	80,876,172
10	127,302,778	21,861,180	8,419,633	104,813,906	23,791,958	81,021,948
17	127,562,848	23,171,833	8,380,999	108,560,981	25,562,858	82,998,123
24	127,613,507	23,286,204	8,335,266	107,505,395	25,397,976	82,107,419
31	128,388,223	23,420,759	8,444,327	106,811,554	22,899,523	83,422,031
Apr. 7	130,606,731	22,599,182	8,929,228	109,193,464	25,656,629	83,536,835
14	129,919,015	23,626,982	8,775,297	109,153,863	24,256,270	84,897,593
21	128,448,868	23,233,314	8,790,459	108,145,233	25,758,735	82,386,498
28	127,085,667	23,279,809	8,749,048	108,206,723	21,391,290	81,815,433
May 5	127,479,520	23,815,746	9,391,861	108,505,388	26,546,063	81,959,325
12	126,184,582	22,780,387	9,153,811	108,038,848	27,802,174	80,236,674
19	124,938,389	23,735,193	9,035,522	106,229,724	25,339,444	80,890,280
26	125,110,700	23,431,773	8,826,473	104,433,186	24,309,496	80,123,640
June 2	124,792,271	24,535,457	8,774,063	104,268,785	22,888,107	81,380,678
9	125,481,963	23,785,581	8,999,948	103,386,091	22,776,108	80,609,983
16	125,399,997	24,110,553	8,828,786	104,031,268	22,492,614	81,538,654
23	125,886,565	23,350,921	8,779,115	102,737,055	22,116,242	80,620,813
30	127,208,201	22,464,250	8,745,182	102,496,762	21,309,053	81,187,709
July 7	127,244,241	22,751,694	9,343,727	103,450,426	22,119,106	81,331,320
14	127,123,166	23,641,357	8,075,528	106,399,678	23,456,447	82,943,231
21	128,427,489	23,443,644	8,833,619	107,717,216	23,457,781	84,259,435
28	129,074,293	23,099,726	8,760,252	105,524,100	21,239,450	84,284,650
Aug. 4	130,118,247	22,128,189	9,176,386	107,264,777	23,417,789	83,846,988
11	129,855,179	21,579,740	9,129,835	105,505,399	22,626,292	82,879,107
18	129,950,346	21,008,701	9,088,648	105,690,481	22,984,365	82,756,116
25	130,578,997	20,119,779	9,142,006	104,423,122	22,433,949	81,989,173
Sept. 1	129,029,175	19,035,029	9,253,682	102,229,586	22,561,086	79,663,998
8	127,999,839	19,187,713	9,538,824	101,185,086	24,072,405	77,112,681
15	127,002,728	18,960,749	9,494,332	101,117,627	24,257,872	76,859,755

BOSTON BANKS.—(CAPITAL, JAN., 1859, $35,125,433; 1860, $37,258,600.)

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 2 ..	59,807,566	4,674,271	6,479,483	18,449,305	7,545,222	6,848,374
16 ..	60,068,941	4,478,841	6,770,624	17,753,002	7,867,400	6,735,288
23 ..	59,917,170	4,182,114	6,486,139	17,378,070	7,784,169	6,516,532
30 ..	59,491,387	4,172,325	6,199,485	17,483,054	7,383,370	6,517,541
Feb. 6 ..	50,705,422	4,249,594	6,307,922	17,900,002	7,259,703	6,656,460
13 ..	59,993,784	4,462,698	6,364,320	17,271,596	7,426,539	6,593,702
20 ..	60,113,836	4,577,334	6,305,537	17,597,881	7,430,060	6,549,382
27 ..	59,927,917	4,714,034	6,411,573	18,020,239	7,700,530	7,480,954
March 5 ..	59,993,784	5,034,737	6,396,656	18,645,621	7,736,290	7,768,074
12 ..	59,885,196	5,328,610	6,430,643	18,393,293	7,715,663	7,390,935
19 ..	60,258,208	5,446,840	6,405,084	18,660,205	.....	.....
26 ..	60,180,209	5,627,961	6,328,273	18,742,817	8,351,016	7,804,222
Apr. 2 ..	60,050,953	6,045,703	6,340,268	19,262,894	8,473,775	8,080,218
9 ..	60,668,559	6,320,551	7,753,491	20,469,893	9,206,161	9,788,121
16 ..	61,189,629	6,289,719	7,267,165	20,291,620	9,160,868	8,314,312
23 ..	61,035,965	6,315,952	7,152,766	20,266,917	9,055,077	8,138,121
30 ..	61,259,552	6,317,999	6,992,903	20,195,951	9,273,558	7,948,086
May 7 ..	61,614,199	6,311,714	7,322,813	20,810,086	9,116,514	8,324,891
14 ..	61,744,290	6,263,535	7,076,071	20,758,862	9,210,182	8,209,699

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
21 ..	61,724,621	6,268,919	7,031,306	20,726,996	9,197,894	8,241,899
28 ..	61,258,986	6,201,113	6,660,595	20,320,518	9,057,822	8,272,557
June 4 ..	61,585,669	6,192,455	6,800,711	20,656,295	9,172,878	8,366,511
11 ..	62,346,519	6,300,700	7,090,282	20,228,677	9,629,483	7,857,439
18 ..	63,085,953	6,322,698	7,165,453	20,677,536	9,988,840	7,991,098
25 ..	63,557,155	6,262,930	7,188,326	20,750,673	10,307,194	8,188,802
July 2 ..	64,172,028	6,059,370	6,925,022	20,828,714	10,300,178	7,527,888
9 ..	65,039,459	6,087,718	7,982,653	21,133,175	11,304,893	9,105,876
16 ..	65,153,418	5,685,920	7,560,636	20,312,421	11,098,306	7,995,222
23 ..	64,852,961	5,335,523	7,523,745	19,751,818	11,093,127	8,158,425
30 ..	64,460,289	5,212,470	6,848,834	19,296,454	10,353,708	6,961,414
Aug. 6 ..	64,777,963	5,164,006	7,127,254	19,610,274	9,923,931	7,378,456
13 ..	64,840,527	5,128,628	7,075,440	19,157,661	9,851,112	6,816,650
20 ..	64,650,278	5,063,925	7,107,097	18,700,624	9,772,783	6,761,286
27 ..	64,216,345	4,966,105	6,790,847	18,965,057	9,656,546	6,956,287

PHILADELPHIA BANKS.—(CAPITAL, JAN., 1860, $11,783,190.)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due banks
Jan. 2....	25,386,387	4,450,261	2,856,601	14,982,919	2,619,192
9....	25,248,051	4,453,252	2,675,623	14,161,487	2,596,212
16....	25,275,219	4,561,998	2,672,730	14,934,517	2,563,449
23....	25,445,737	4,514,579	2,644,191	15,064,970	2,601,271
30....	25,526,198	4,585,321	2,601,750	15,401,915	2,619,573
Feb. 6....	25,493,975	4,669,929	2,656,310	15,409,241	2,574,015
13....	25,493,975	4,669,929	2,656,310	15,409,241	2,574,015
20....	25,458,354	4,581,356	2,663,695	14,864,302	2,782,306
27....	25,553,918	4,706,108	2,653,192	14,590,092	3,115,010
Mar. 5....	25,742,447	4,816,052	2,697,108	15,192,971	3,133,312
12....	25,742,447	4,816,052	2,697,108	15,192,971	3,133,312
19....	25,832,077	4,873,419	2,783,345	15,205,432	3,209,553
26....	26,043,772	4,992,542	2,784,773	15,693,622	3,198,530
April 2....	26,405,229	5,060,274	2,858,812	15,553,269	3,652,757
9....	27,214,254	5,209,576	3,528,762	15,528,762	4,085,695
16....	27,444,580	5,415,711	3,252,186	16,012,140	4,164,678
23....	27,545,351	5,464,280	3,154,285	16,613,616	3,985,110
30....	27,571,002	5,453,470	3,037,846	16,529,891	3,902,514
May 7....	27,590,212	5,477,019	2,968,444	16,763,609	3,781,987
14....	27,463,831	5,537,360	2,944,245	16,489,872	4,209,845
21....	27,401,926	5,367,416	2,870,617	16,422,835	4,085,882
28....	27,288,932	4,886,579	2,818,719	15,884,908	3,974,369
June 4....	27,171,002	4,582,610	2,824,471	15,620,293	3,744,431
11....	27,046,016	4,188,667	2,810,552	15,698,909	3,128,287
18....	26,882,709	4,222,644	2,725,269	15,642,639	3,109,639
25....	26,780,533	4,329,638	2,654,503	15,643,433	3,060,615
July 2....	26,835,868	4,305,866	2,960,381	15,824,391	3,159,819
9....	26,835,868	4,305,866	2,960,381	15,824,391	3,159,819
16....	26,878,435	4,403,157	2,859,852	15,796,205	3,313,195
23....	26,842,743	4,553,641	2,821,082	15,966,734	3,099,567
30....	26,861,776	4,249,304	2,785,718	16,085,967	3,211,855
Aug. 6....	26,936,227	4,800,443	2,837,207	16,369,525	3,097,889
13....	26,830,307	4,768,405	2,849,340	15,671,260	3,261,584
20....	26,835,337	4,771,772	2,854,653	15,588,318	3,275,683
27....	27,095,028	4,757,917	2,835,524	15,923,769	3,185,826

NEW ORLEANS BANKS.—(CAPITAL, JAN., 1860, $18,917,600.)

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
Jan. 7 ..	25,022,456	12,234,448	12,038,494	18,563,804	7,323,530	1,557,174
14 ..	24,928,909	12,336,735	12,417,847	18,678,233	7,410,360	1,387,704
21 ..	24,699,024	12,821,411	12,809,512	18,664,355	7,423,629	1,377,796
28 ..	24,916,431	12,818,159	12,882,184	19,677,121	8,144,681	1,603,763
Feb. 4 ..	25,145,274	12,750,642	13,215,494	19,565,305	8,003,380	1,613,036
11 ..	25,197,351	12,741,881	13,343,924	19,244,847	7,349,365	1,396,150

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
18 ..	25,005,952	12,894,521	13,458,989	19,903,519	7,886,609	1,470,787
25 ..	24,897,286	12,945,204	13,600,419	19,218,590	8,083,929	1,635,526
Mar. 3 ..	24,946,210	12,952,002	13,860,899	20,116,272	8,027,049	1,092,475
10 ..	24,088,800	13,039,092	13,726,554	19,711,423	8,582,012	1,601,149
17 ..	24,054,845	12,729,356	13,797,154	19,304,618	8,498,790	1,718,810
24 ..	23,832,766	12,610,790	13,835,755	19,102,068	8,342,599	1,738,246
31 ..	23,674,714	12,437,195	13,975,624	18,681,020	8,149,061	1,610,499
Apr. 7 ..	23,107,740	12,368,071	14,100,890	18,070,209	8,560,117	1,942,056
14 ..	22,422,203	12,290,539	13,638,089	17,849,018	8,179,441	1,608,468
21 ..	22,380,033	12,100,687	12,999,204	18,380,033	7,649,069	1,649,060
28 ..	21,437,974	11,910,361	12,783,749	17,699,538	7,686,634	1,877,017
May 5 ..	21,437,974	11,910,361	12,783,749	17,699,538	7,686,634	1,877,017
12 ..	20,545,529	11,672,364	12,258,444	17,442,974	7,213,833	1,763,871
19 ..	19,385,119	11,706,007	12,163,609	17,260,226	6,909,386	1,680,480
26 ..	18,588,492	11,593,719	11,900,864	17,938,774	6,599,676	1,596,210
June 2 ..	18,282,807	11,191,024	11,791,799	16,985,565	6,173,783	1,459,051
9 ..	17,423,118	11,072,286	11,572,259	16,989,587	5,958,996	1,442,041
16 ..	16,864,692	10,693,389	11,389,389	16,105,586	5,588,880	1,665,076
23 ..	16,821,969	10,223,276	11,138,484	15,319,947	5,067,682	1,739,481
July 7 ..	16,627,125	9,883,812	10,921,057	14,671,491	4,548,395	1,601,540
14 ..	16,795,836	9,693,954	10,695,884	14,557,417	4,123,242	1,401,804
21 ..	16,945,426	9,544,793	10,810,824	14,326,547	3,706,020	1,512,608
28 ..	17,802,024	9,607,448	10,071,883	14,358,384	3,219,947	1,163,961
Aug. 4 ..	19,006,951	9,780,130	9,786,684	14,264,107	2,900,039	1,318,398
11 ..	19,383,879	9,846,131	9,526,934	14,368,664	2,565,150	1,182,381
18 ..	20,313,484	9,801,183	9,357,964	14,107,235	2,119,789	1,299,462
25 ..	21,332,818	9,900,424	9,263,874	13,614,301	1,756,034	1,346,814

PITTSBURG BANKS.—(CAPITAL, $4,160,200.)

	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 16.....	7,202,367	980,530	2,080,548	1,527,548	304,562
23.....	7,060,471	1,022,273	2,012,478	1,545,103	255,076
30.....	6,989,320	1,003,037	1,896,363	1,555,686	265,804
Feb. 6.....	6,984,209	997,589	1,907,323	1,609,692	230,426
13.....	6,989,052	951,638	1,883,093	1,602,311	191,222
20.....	6,957,621	988,306	1,868,598	1,643,703	175,051
27.....	7,022,280	991,377	1,821,288	1,760,957	224,434
Mar. 5.....	7,101,459	1,018,255	1,871,373	1,768,879	273,343
12.....	7,035,624	999,093	1,901,543	1,651,216	197,007
19.....	7,066,774	1,004,750	1,945,328	1,636,887	198,556
26.....	7,038,891	981,560	1,980,732	1,572,130	192,411
Apr. 2.....	7,166,377	1,005,415	2,085,583	1,601,167	191,101
9.....	7,206,737	990,962	2,072,373	1,693,230	171,100
16.....	7,159,568	1,018,445	2,071,878	1,651,362	187,255
23.....	7,278,279	1,156,278	2,024,188	1,897,498	240,143
30.....	7,234,761	1,141,373	1,995,053	1,913,537	175,671
May 5.....	7,234,761	1,141,373	1,995,053	1,913,537	175,671
14.....	7,263,197	1,088,851	2,011,258	1,890,810	215,765
19.....	7,196,493	1,133,719	2,022,988	1,906,773	213,944
27.....	7,190,192	1,122,057	1,952,683	1,918,321	206,316
June 4.....	7,282,963	1,089,751	1,907,248	1,919,903	277,978
11.....	7,214,889	1,126,308	1,919,688	1,892,800	240,728
18.....	7,247,541	1,102,446	2,029,558	1,743,915	271,062
25.....	7,291,888	1,150,248	2,048,358	1,779,752	315,858
July 14.....	7,310,663	1,068,974	2,071,443	1,818,515	239,882
21.....	7,294,391	1,083,220	2,078,593	1,846,879	205,011
28.....	7,215,944	1,093,084	2,069,803	1,861,817	167,671
Aug. 6.....	7,203,057	1,130,002	2,018,623	1,860,348	234,346
13.....	7,188,260	1,123,027	1,990,498	1,853,759	175,924
20.....	7,093,091	1,152,198	2,007,653	1,859,418	239,790
27.....	7,047,761	1,167,384	2,084,758	1,843,750	232,181

ST. LOUIS BANKS.

	Exchange.	Circulation.	Specie.
Jan. 7	4,373,543	538,555	662,755
14	4,467,513	520,305	642,497
21	4,352,699	502,175	580,754
28	4,290,563	495,380	563,335
Feb. 4	4,149,236	457,095	590,502
11	4,048,593	424,605	625,043
18	3,906,896	391,605	639,450
25	3,951,433	399,085	680,877
March 3	3,891,263	395,905	689,301
10	3,998,827	377,935	651,302
17	3,963,924	377,355	641,252
24	3,880,915	356,245	664,179
31	3,790,291	340,095	685,984
April 7	3,862,454	344,630	657,321
14	3,868,345	325,950	676,858
21	3,852,614	314,360	601,014
28	3,694,877	306,750	678,234
May 5	3,609,648	301,300	746,176
12	3,683,644	294,115	808,918
19	3,695,707	285,140	826,793
26	3,767,986	273,540	671,669
June 2	3,879,617	255,210	627,942
9	3,823,735	253,780	656,358
16	3,888,763	244,850	682,917
23	3,967,032	235,935	705,764
30	3,825,423	206,749	804,983
July 7	3,736,695	199,385	791,729
14	3,892,096	152,025	684,358
21	3,679,192	191,375	752,397
28	3,625,333	177,620	658,852
Aug. 4	3,526,098	173,310	633,795
11	3,540,196	176,115	637,310
18	3,560,267	188,375	714,046
25	3,599,470	220,605	728,545

PROVIDENCE BANKS.—(CAPITAL, $14,903,000.)

	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 2	19,144,854	315,917	2,011,336	2,635,486	938,508
Feb. 6	19,144,846	326,297	1,958,540	2,566,168	921,779
Mar. 3	19,009,255	342,965	1,917,593	2,598,169	970,971
Apr. 1	18,686,210	343,992	1,952,022	2,640,170	1,040,260
May 7	18,893,653	448,413	2,045,590	2,773,248	1,356,071
June 4	18,891,907	422,726	1,938,254	2,844,012	1,210,104
July 2	19,243,061	430,128	2,158,904	2,790,587	1,115,951
Aug. 6	19,530,296	397,286	2,218,347	2,748,678	1,169,800
Sept. 3	19,566,718	357,188	2,128,957	2,526,943	1,082,109

THE FAILURES IN THE LEATHER TRADE.

The recent and heavy failures in the London leather trade have created much surprise among the merchants and bankers there. That of Messrs. STREATFIELD & Co. shows an aggregate liability of £744,000, and the gross assets only £214,000 —a resulting loss of at least £530,000. Of this and other equally unfavorable exhibits, the *Banking Atlas*, of London, says:—

The facts which have already been made known under this failure are full of commercial interest. It appears from an inspection of the accounts that at so short a period back as January, 1857, this firm was solvent; and that £365,000, owing to them by customers as good, are now considered as bad debts, and that

this amount has gone on increasing up to the time of their failure, until their liabilities have reached the enormous amount above stated. The partners—like many others who have trusted to the same broken reed—appear to have anticipated a recovery of their position from the future profits of their business, and from some other property. These, however, having failed, a suspension took place as the natural consequence of accumulated difficulties. When, however, we hear of firms of such magnitude being crushed under the weight of their own transactions, such examples are of little value, except a commercial lesson can be extracted from them. Here we have an old firm, carrying on an immense business in a particular branch of trade; standing like a sun in the midst of lesser luminaries, through whose borrowed light they shine in their respective orbits; yet in less then three years this firm falls into bankruptcy, dragging down other houses that involve from two to three millions of liabilities.

Now, there is a certain class of writers, as well as traders, that are always prophesying "smooth things." They glance at our export tables and find that our foreign and colonial trade have increased; and, therefore, they come at once to the conclusion that prosperity must form the basis of this augmented commerce. Suddenly there is a flaw discovered somewhere. Some "great house" is whispered about; then it is openly talked of; at last, it "falls like Lucifer." It then creates a temporary wonderment, and the event is passed. "Overtrading," "speculation," and "accommodation bills," and other reasons are assigned as the cause of such commercial disasters; while lawyers and accountants proceed to divide the assets.

If we look a little deeper into the subject we shall discover that these failures are generated by other causes than those we have named. They have their procreating power in that system of money and credit which has long been the hidden curse of our national industry. We are told by the accountant that from January, 1857, "to the time of their failure, there was a gradual increase in the amount of bad debts." Yet were Messrs. STREATFIELD & Co. careful traders. During the past three years the profits of their business amounted in gross to £133,000; out of which they had set for bad debts £108,503; but this was a drop of water in the ocean to stem the torrent against them. There is a hiatus in the accountant's statement which, if filled up, would afford a valuable lesson to the commercial community. How did such a firm as this pass through the crisis of 1857, when the ordinary rate of discount was 10 per cent? And at what cost were those firms sustained in their position who depended upon Messrs. STREATFIELD for assistance? It may be a matter of surprise to find so large an amount of paper under discount; but this is no more than the natural result of a system of credit, which gives to money an unnatural value, until trade and commerce are drawn into the vortex of inextricable debt. We do not say that Messrs. STREATFIELD & Co. may not have been chargeable with imprudence in their business; we are now referring to the credit system under our present money laws, a system that is rapidly tending to centralize the entire power of money dealing in London at any cost.

Our merchants and traders are as yet mere children in monetary science. They speak of the "supply" and the "demand" of money, as if it grew up like a garden of cabbages or a field of wheat, instead of making themselves acquainted with the causes which are continually operating to make a given quantity more scarce or more accessible. When merchants and traders shall become as well acquainted with the science of money as the sailor is of navigation, they will understand what it is that causes them to be so frequently shipwrecked in the midst of their fancied prosperity.

Other failures in the English leather trade show the following disastrous results:—

	Liabilities.	Assets.
Thomas Randall	£40,600	£19,700
W. G. Gibson.....	150,000	40,000
W. J. Armstrong.....	6,500	3,600
Hooper & Parkinson	43,700	10,700

FINANCES OF THE SANDWICH ISLANDS.

By command of the king and in conformity with the requirements of the constitution, the following report on the finances of the Kingdom for the biennial period ending with March 31, 1860, is respectfully submitted to the Legislature:

The balance in the treasury, April 1, 1858, was		$349 24
The receipts during the two years ending March 31st, 1860, have been as follows:—		
From bureau of foreign imposts	$213,209 08	
" " internal commerce	62,528 26	
" " " taxes	108,841 85	
" " government press	7,873 41	
" " fines and penalties	50,564 34	
" " fees and perquisites	25,389 31	
" " government realizations	100,831 49	
" miscellaneous receipts	86,628 94	
		655,866 68
		$656,215 92

The expenditures during the same period have been as follows:—		
For civil list	$52,326 21	
" department of the interior	107,821 43	
" government press	20,000 00	
" department of foreign relations	16,065 78	
" " finance	52,706 34	
" " public instruction	23,742 83	
" " war	45,494 64	
" " law	90,928 27	
" bureau of public improvements	131,821 35	
" miscellaneous expenditure	101,985 40	
Loss on depreciated coin	196 15	
		643,088 40
Balance on hand March 31st, 1860		13,127 52
		$656,215 92

The debt of the government April 1, 1860, was $108,777 33. Of this, $100,075 22 bears interest at 12 per cent per annum. On the balance, consisting mainly of outstanding appropriations, no interest is payable.

To the amount thus specified should perhaps be added the sum of $20,000, borrowed by the Minister of the Interior, under the provisions of the act approved April 21, 1859, in regard to water works, for which, however, the general treasury is not immediately responsible, as the receipts from water rents are set apart and pledged for the payment of such loan. These receipts now constitute a special fund to be applied solely to that object.

BANKING IN NEW SOUTH WALES.

An official return illustrative of the position of the joint-stock banks of New South Wales in the quarter ending the 31st of March last, exhibits the following results:—Notes in circulation, $896,619; bills in circulation, £28,678; balances due to other banks, £491,561; deposits, £5,354,606; total liabilities, £6,771.464; coin held, £1,409.106; bullion, £35,791; landed property, £229,328; notes and bills of other banks, £67,304; balances due from other banks, £1,309,434; notes and bills discounted and other debts due, £6,253,345; total assets, £9,304,307. The paid up capital amounted to £5,708,012; the

last dividends absorbed £357,875, and the amount of reserved profits after the declaration of the dividends was £1,316,240. The rate of dividend varied from 7 to 20 per cent.

BANK OF FRANCE.

The returns of the Bank of France for the months of June and July of the present year show a commendable increase of circulation as compared with the cash on hand :—

DEBTOR.

	July. F. C.	June. F. C.
Capital of the Bank	91,250,000 00	91,250,000 00
" New	91,250,000 00	91,250,000 00
Profits in addition to capital, (Art. 8, Law of June 9, 1857)	1,510,527 65	1,510,527 65
Reserve of the bank	12,980,750 14	12,980,750 14
New reserve	9,125,000 00	9,125,000 00
" " in landed property	4,000,000 00	4,000,000 00
Notes in circulation	787,406,325 00	743,938,925 00
Bank-notes to order	7,262,436 56	7,156,389 20
Receipts payable at sight	11,311,458 00	11,167,805 00
Treasury account current creditor	127,564,406 90	126,274,331 18
Sundry accounts current	197,641,945 63	209,651,926 63
" " " with branch banks.	22,620,057 00	39,380,995 00
Dividends payable	5,446,766 75	564,624 75
Discounts sundry interests	5,852,723 54	1,964,555 21
Commission on deposits	1,574,190 40	10,123,345 13
Rediscounted the last six months	1,216,446 20	1,326,692 17
Surplus on bills overdue	625 73	29,571 93
Sundries	3,948,779 47	3,654,796 84
Total	1,391,982,438 97	1,365,350,135 23

CREDITOR.

Cash in hand	141,350,634 45	173,282,807 83
Cash in branch banks	372,958,946 00	378,150,114 00
Commercial bills overdue	459,617 09	217,284 63
" " discounted not yet due	221,783,352 16	200,293,618 88
" " in the branch banks	270,057,075 00	237,470,680 00
Advanced on deposit of bullion	2,564,700 00	1,949,100 00
" by the branch banks	2,538,300 00	1,313,700 00
" on French public securities	25,503,300 00	25,897,600 00
" by the branch banks	14,872,000 00	14,486,400 00
" on railway securities	93,182,400 00	79,062,200 00
" by the branch banks	28,884,450 00	29,138,550 00
" on Credit Foncier scrip	630,400 00	593,300 00
" on branch banks scrip	433,100 00	294,300 00
" to the State on agreement of June	35,000,000 00*	40,000,000 00
Government stock reserved	12,980,750 14	12,980,750 14
" " disposable	53,708,840 38	53,708,840 38
Hotel and furniture of bank	4,000,000 00	4,000,000 00
Landed property of branch banks	6,388,548 00	6,394,172 00
Expenses of management	171,352 47	1,924,407 22
Sundries	4,414,673 28	4,192,610 15
Rentes Immobilisees (law of 9th June, 1857)	100,000,000 00	100,000,000 00
Total	1,391,982,438 97	1,365,350,135 23

Certified by the governor of the Bank of France,

Count CH. DE GERMINY.

* Difference from last statement, five millions.

PORTSMOUTH.

The Portsmouth *Journal* remarks:—Although our city does not appear to have increased in population these last ten years, it is found by reference to the city books that the taxable property has increased from $4,500,000 in 1850, to $5,720,000 in 1860; being an increase of 30 per cent in ten years, notwithstanding the reduced valuation of ships.

The deposits in the Savings Bank have increased in the same time from $422,000 to $1,034,000, being an increase of 150 per cent. These deposits are mostly made either by the citizens of Portsmouth or by those of the towns in the immediate vicinity, which come to our market and trade with us.

Lots for building are held from ten to twenty cents per foot, the latter price being over $8,000 per acre.

Taking these facts into consideration, we do not think there is any reason to complain of the last ten years' business. If our population has not increased, there are fewer to divide our wealth among.

	1850.	1860.	Increase.
Valuation of real estate	$2,363,327	$2,800,570	$437,243
Valuation of personal estate	2,142,276	2,920,908	778,632
Polls	1,600	1,992	392

It is a rather remarkable fact that while our census returns indicate our population without an advance since 1850, that the town books show the aggregate polls of that year to be exactly 1,600, while in 1860, they number 1,992. A portion of this increase may be attributed to the naturalization of foreigners who were residents but not voters previous to 1850. Not much of the increase of personal property arises from the Savings Bank deposits—more than half of which has been made by females and other individuals whose property has not been taken into account in the valuation.

NEW YORK ASSAY-OFFICE.

The operations of the New York Assay-office have been, to the close of December, 1859, as follows:—

DEPOSITS, ETC., AT THE UNITED STATES ASSAY-OFFICE, NEW YORK, TO DECEMBER 31, 1859.

Gold bullion deposits		$99,256,633 42
Silver bullion deposits	$5,046,601 21	
Silver parted from gold	787,901 98	
		5,834,503 19
Total bullion deposits		$105,091,136 61
Fine gold bars returned for coins		$727,595 10
Fine gold bars paid to depositors		68,702,835 48
Fine bars made by melter and refiner, viz.:—		
Gold	$88,123,248 14	
Silver	1,277,018 56	
		89,400,266 70
Bullion sent to the United States mint for coinage, viz.:—		
Gold	$31,670,049 11	
Silver	5,025,483 69	
		$36,695,532 80
Total amount transported to and from Philadelphia		$73,391,065 60
Cost of transportation		46,746 50

FINANCES OF EUROPE AND AMERICA.

The *International Annual of Public Credits*, published at Paris, contains the following table by J. E. HORN, a noted economist, showing the population, debt, and finances of the leading countries of Europe and America, or those which have a population of more than 1,000,000 :—

States.	Population.	Annual revenue.	Expenses.	Annual interest on debt.
North America	23,283,488	285,231,133	389,545,549	51,715,332
Austria	37,339,912	649,843,662	733,751,943	249,504,625
Baden	1,335,952	70,535,111	69,790,587	7,227,000
Bavaria.....	4,616,750	93,134,512	93,033,592	28,003,320
Belgium..... ...	4,623,089	149,188,790	138,710,436	38,483,224
Brazil.....	7,778,000	140,291,000	120,291,000	21,471,000
Denmark.....	3,437,576	74,465,011	70,884,122	18,035,511
Spain	15,518,500	492,009,440	490,716,154	168,867,293
France	36,205,792	1,825,854,379	1,824,957,778	816,020,808
Great Britain.....	27,621,860	1,665,636,066	1,632,568,036	719,985,898
Greece	1,045,232	19,602,000	19,238,918	1,154,291
Hanover.....	1,844,000	72,152,962	71,369,285	7,925,255
Italy.....	25,600,090	510,000,000	510,000,000	125,000,000
Netherlands.....	3,543,775	194,057,808	165,204,664	70,466,732
Portugal.....	3,568,895	50,334,359	61,033,721	16,010,937
Prussia	17,740,000	485,266,935	485,266,935	49,889,297
Russia.....	60,000,000	1,101,888,000	1,101,888,000	240,000,000
Saxony.....	2,039,075	41,565,133	41,565,133	9,594,014
Sweden and Norway ..	5,072,820	176,049,772	170,581,080	27,310,509
Switzerland.....	2,392,740	17,216,270	16,087,706	317,580
Turkey.....	16,440,000	230,000,000	230,000,000	53,100,000
Wurtemburg.....	1,690,898	30,207,388	30,297,388	5,724,000
Total.....	282,727,354	8,386,229,961	8,476,783,156	2,234,814,818

The whole are reduced to francs.

SAVINGS BANKS OF NEW HAMPSHIRE.

The Bank Commissioners' report states the number of savings institutions per last year's report, at 23 ; increase during the year, 3 ; present number, 26.

Whole amount due depositors.....	$4,860,024 86
Amount due depositors, per last year's report..... ..	4,138,822 40
Making an increase during the year of.....	$721,202 46
Whole amount of apparent surplus.....	207,491 40
Amount of bad and doubtful assets.....	25,904 75
Leaving a net surplus of.....	$181,586 65
Whole amount loaned and invested out of the State.....	1,661,791 98
Whole amount loaned and invested out of the State, as per last year's report.....	1,188,957 15
Making an increase during the year of.....	$472,834 83

There are three banks in the State with a capital of $200,000 ; six, $150,000 ; one, $141,000 ; two, $125,000 ; one, $120,000 ; seventeen, $100,000 ; three, $80,000 ; two, $75,000 ; four, $60,000, and twelve, $50,000. The whole amount of specie on hand is $253,496 35.

AUSTRIAN FINANCES.

A German journal in a recent issue presents a statement of the Austrian government debt, and of its increase from time to time. It reckons that the State has at present:—

A consolidated debt of	guilders	1,922,857,375
A floating debt of		345,214,156
Making a total of		2,268,071,532

—as the amount of Austrian indebtedness at the beginning of the year 1860, bearing an annual interest of 99,465,947 G.

And this estimation of the public is even 63,000,000 below the estimate of the minister of finance.

The annexed table shows the amount of annual deficits:—

	Official deficit.	Deficit according to private calculation.		Official deficit.	Deficit according to private calculation.
1848....flor.	45,110,646	58,879,661	1855.....	138,899,297	186,135,017
1849.....	121,905,805	139,936,224	1856.....	62,353,667	111,180,771
1850.....	54,864,862	90,589,725	1857.....	42,533,868	101,663,650
1851.....	62,223,630	104,399,971	1858.....	36,481,861	44,205,054
1852.....	53,447,331	79,624,518			
1853.....	56,253,635	86,515,965	Total.....	815,357,524	1,181,303,496
1854.....	140,712,922	178,163,940			

Meanwhile government had parted with many valuable properties. It sold in 1855, the Hungarian and Bohemian State Railroads, together with lands and mines, to a French company for the sum of 80,000,000 C. M.; 1856, the Lombardo-Venetian road, with the exception of a portion from Verona to Southern Tyrol, to the Vienna Creditanstalt for 100,000,000 lire—33⅓ millions; 1858, the last Southern State road to the same company for Fl. 100,000,000, the last 30,000,000 of which amount, however, are only to be paid when a revenue of 7 per cent on the capital shall have been earned. Add to these the sale of the Siebenburgen Aerarial Iron Mines, etc.; the contributions levied upon the Italians, and the indemnity of war which Sardinia had to pay after 1849, with 75,000,000 lires—28,571,000 florins—all of which has been used. The deficit of 1859 ought not to be estimated at less than 200,000,000 or 300,000,000.

CHILIAN MINT—NEW MINES.

Recent advices from Chili report that, by direction of the executive, the mint hereafter will coin one dollar gold pieces, and, as soon as practicable, 500,000 of silver coin of twenty, ten, and five cents value; the twenty cent pieces to weigh four grains, sixty centigrams; the ten cent pieces, two grains, thirty centigrams, and the five cent pieces, one grain, fifteen centigrams. A Valparaiso paper states that a month ago there were only three mines whose ores showed silver visibly; now there are no less than ten in that condition. The shares that formerly sold for $2,500 are now valued at $3,500, and some cannot be obtained for $5,000. Fresh discoveries are made every day both of silver and copper mines. At the very foot of the Andes a silver mine has been discovered rivaling in richness the very richest of Copiapo.

OHIO VALUATION.

The State valuation of real property in Ohio shows an increase of seventy-five millions in six years, viz. :—

Total valuation 1853	$558,725,000
Total valuation 1859	633,246,000

Hamilton County, in which Cincinnati is located, represents one-eighth of the whole property of the State. The counties having over ten millions are as follows :—

	1853.	1859.
Butler	$12,287,000	$13,824,000
Cuyahoga	25,426,000	23,818,000
Franklin	18,652 000	19,534,000
Greene	8,410,000	10,770,000
Hamilton	78,636,000	81,620,000
Licking	11,164,000	12,529,000
Montgomery	15,688,000	18,281,000
Muskingum	12,207,000	12,380,000
Pickaway	9,092,000	10,840,000
Ross	11,004,000	12,077,000
Stark	10,264,000	11,363,000
77 other counties	335,900,000	406,110,000
Total	$558,725,000	$633,246,000

BANKS OF ILLINOIS.

The official returns give the following figures for the amounts of securities held for the circulation of the 81 banks of that State :—

	No. of banks.	Securities.	Circulation.
January, 1858	45	$6,164,017	$5,288,930
" 1859	48	6,486,652	5,707,048
" 1860	74	9,826,691	8,981,723
July, 1860	81	10,678,999	9,610,084

This indicates a pretty rapid expansion at a time when crops were short.

BANKS OF MISSOURI.

The following is a comparative official return of the banks of Missouri :—

	January 1.	July 1.		January 1.	July 1.
Capital, State	$1,000,000	$1,086,300	Discounts	$4,992,245	$5,476,261
" individual	8,082,951	9,592,743	Exchange	9,759,021	9,545,779
Deposits	3,348,347	3,011,294	Bank notes	1,046,915	1,534,099
Banks	1,200,011	979,463	Specie	4,160,912	4,708,087
Circulation	7,884,885	7,820,760			

BROOKLYN FINANCES.

The Auditor and Controller reported that they had examined the accounts of the city treasurer, pursuant to the provisions of the charter. It appears by the statement submitted, that for the year ending June 30, 1860, the receipts of the general fund were $3,801,138 60, and of the special fund, $295,409 65. During the same period, the disbursements were, out of the general fund, $2,686,747 38 ; and out of the special fund, $142,882 84. The balances in the treasury July 1, 1860, were :—General fund, $1,114,391 22 ; special fund, $152,526 81.

STATISTICS OF TRADE AND COMMERCE.

TRADE OF THE NORTHWEST.

The following from the Wisconsin *Republican* gives the—

EXPORTS OF MINNESOTA, NORTHERN IOWA, AND WESTERN WISCONSIN, CAREFULLY DERIVED FROM ACTUAL SHIPMENTS, AT ALL THE UPPER MISSISSIPPI PORTS ABOVE DUNLEITH, ILL., FROM 20TH AUGUST, 1859, TO JULY 15TH, 1860.

MINNESOTA.

Towns.	Wheat.	Oats.	Other grain.	Total.
Stillwater.....bushels	4,600	10,000	....	14,600
Point Douglass.....	12,000	14,000	2,000	28,000
St. Paul.....	71,490	53,700	9,500	134,690
Pine Bend.....	8,000	5,000	3 900	16,900
Nininger.....	5,320	3,500	1,500	10,320
Hastings.....	165,000	110,000	5,000	280,000
Red Wing.....	103,000	19,800	2,200	125,000
Waucota.....	1,000	500	300	1,800
Lake City.....	57,425	22,000	7,500	80,925
Reed's Landing	3,550	3,500	350	7,400
Wabashaw.....	42,800	15,000	3,500	61,300
Minneiska	13,000	5,000	200	18,200
Mt. Vernon.....	8,000	3,000	150	11,150
Winona.....	441,000	219,000	18,000	678,000
Brownsville	120,000	55,000	3,000	178,000
Total.....	1,050,685	538,500	57,100	1,646,285

WISCONSIN.

Hudson.....	57,040	40,100	9,000	105,140
Prescott	85,000	77,500	7,763	170,263
Alma.....	20,800	10,100	1,500	32,400
North Pepin.....	5,480	3,590	1,350	10,420
Fountain City.....	23,800	12,100	2,500	38,400
Trempelau.....	24,000	15,000	4,500	43,500
La Crosse...	230,500	175,000	....	405,500
Bad Axe.....	3,500	1,500	....	5,000
Victory...	4,000	2,000	....	6,000
Desota.....	13,600	9,500	1,500	24,000
Wapeton.....	19,000	8,000	....	27,000
Total.....	486,720	354,390	27,113	886,225

IOWA.

Lansing.....	255,500	73,770	8,450	337,320
McGregor.....	951,000	177,000	13,700	1,141,700
Clayton..... ..	21,000	22,000	1,500	. 44,500
Guttenburg.	19,340	22,250	2,320	43,910
Buena Vista.....	8,000	2,500	....	10,500
Total.....	1,254,840	297,120	25,970	1,577,930

In addition to the above, there has been flour shipped as follows:—From Winona, 5,400 bbls.; La Crosse, 6,500 ; McGregor, 7,000; Clayton, 17,000; Guttenburg, 10,000.

It is estimated that there has been shipped, in addition to the above report, from various small places on the Mississippi river .....bush.	50,000
From Wisconsin out of the Chippewa.....	200,000
From Minnesota out of the Minnesota.....	70,000
Total..... .	320,000

RECAPITULATION.

Minnesota, total, including flour	1,673,285
Wisconsin, " " "	900,725
Iowa " " "	1,747,930
Other estimates	320,000
Grand total	4,641,940

LAKE VESSELS ON THE OCEAN.

To see a vessel hailing from Detroit and other ports on the lakes is becoming a frequent occurrence. Within three years past ten barks, five brigs, forty-one schooners, one propeller, and eight tug boats have left the lake waters and are now employed in salt water service. These vessels, with the exception of the tugs, represent 18,035 tons. Two of the barks and one schooner are Canadian vessels. These lake vessels are readily distinguished by any one conversant with ships, by having a very short bowsprit, straight stem, and appliances for "tricing up" the jibboom and head gear so that they may be enabled to pass through the locks on the canals. Only three of this fleet have been lost. The first was the Colonel Cook, which was lost in the Gulf of St. Lawrence in 1858. The Republican, of Huron, Ohio, was lost off the Coast of Florida last spring, and the last was the bark Magenta, of Green Bay, Michigan, which left Boston for London, July 7. She was abandoned at sea July 22d, and her crew arrived at Liverpool early this month. The trade between Liverpool and the lake ports is not unfrequently made direct. The J. F. Warner cleared from Liverpool, July 29, for Cleveland, Ohio, and the Canada bark F. F. Park sailed from the same port direct for Montreal and Detroit. As the times on the lakes seem to have a better look for the fall trade, several of these vessels are ordered back. The Sophia Smith, J. W. Holt, and Fashion have already received their orders to return. Had this state of things been predicted six years ago, the most far-sighted of the lakemen would not have believed it. But a variety of circumstances have tended to bring the lake vessels into our coasting trade, as well as to induce them to go across the Atlantic. From their flat build they make excellent cotton traders, and large numbers of them are engaged in that branch of our coasting trade. The schooner G. D. Dorisman was reported Aug. 1st hauling out of Royal Albert dry dock, at Passage West, Cork, after undergoing repairs. The schooner Forest City, Capt. LOVELL, cleared from Boston, a few days ago for Albany and Troy.

COMMERCE OF NEW ORLEANS.

In its very valuable annual tables, the New Orleans *Prices Current* remarks:—

In our last annual review, we had occasion to notice the disturbing influence upon commerce and finance of the war in Italy, and its depressing effect on cotton, notwithstanding which the season's operations in that great staple had appeared very satisfactory to the planting interest, having embraced the disposition of the largest crop thus far ever produced, while prices had been maintained above the average of the smaller crop of the previous year. The production of cotton for the year now under review has shown a further large increase in amount and value, and with the return of peace in Europe, and prosperous manufacturing interests at home and abroad, the crop has been disposed of at an average range of remunerative prices. The increase of the crop for the year

just closed, over that of the year immediately preceding, amounts to fully 800,000 bales, and exceeds that of the previous year over 1,500,000 bales, and the increase in value for the total crop, delivered at all the ports, compared with last year, amounts to fully $20,000,000, and over $50,000,000 compared with the year before.

The value of our products received from the interior during the past season, according to our annual valuation table, amounts to the large total of $185,211,254, against $172.952,664, showing an increase over last year of $12,258,590, and over 1857–58 of $18,055,708. To refer back ten years, we find an increase over 1849–50 of $88,313,381, equal to fully 90 per cent. This is certainly a very fair exhibit of the progress of trade in our city, and a corresponding advance is promised for the future in the internal improvements which have been carried forward during the year in our own and adjoining States. The New Orleans, Jackson, and Great Northern Railroad has established connections with other great thoroughfares which place us in direct communication with the richest portions of our Southern interior, and with nearly all parts of the country—West, North, and East; and the New Orleans, Opelousas, and Great Western Road begins to open to our commerce the richest producing regions of the South and West, heretofore so difficult of access, and promises at no distant day to bring us a largely increased share of the productions of Texas.

According to the Custom-house records the total value of exports to foreign countries, of produce and merchandise of the growth and manufacture of the United States, and of foreign merchandise, for the fiscal year ending June 30, 1860, was $108,393,567, against $101,634,952 last year; showing an increase of $6,758,615. Of the value of exports coastwise the Custom-house has kept no record since 1857, but an estimate which we have made from our own tables enables us to state that the amount is about $30,000,000; thus making the total value of our exports foreign and coastwise $138,393.567. The value of foreign merchandise and specie imported in the same period was $22,920,849, against $18,349,516 last year; showing an increase of $4,571,333. There is no record of the value of the numerous cargoes of domestic and foreign merchandise and produce received coastwise, but its amount would count by *tens of millions.*

TABLE SHOWING THE RECEIPTS OF THE PRINCIPAL ARTICLES FROM THE INTERIOR DURING THE YEARS ENDING 31ST AUGUST 1859 AND 1860, WITH THEIR ESTIMATED AVERAGE AND TOTAL VALUE.

	1859.			1860.		
Articles.	Amount.	Av. price.	Value.	Amount.	Av. price.	Value.
Apples.....bbls.	43,320	$8 00	$346,560	67,416	$5 00	$337,080
Bacon..hhds. & csks.	35,491	90 00	3,194,190	45,015	90 00	4,051,350
Bacon.....bxs.	3,815	40 00	152,600	5,987	15 00	89,805
Bacon hams,hhds.&c.	37,829	70 00	2,648,030	37,814	55 00	2,079,770
Bacon in bulk...lbs.	10,000	8	800	39,000	8	3,120
Bagging. ....pieces	34,706	14 00	485,884	21,427	15 00	321,405
Bale rope .....coils	127,321	9 00	1,145,889	125,429	9 00	1,128,861
Beans.....bbls.	7,771	5 00	38,855	8,889	4 50	40,000
Butter..kegs & firks.	25,113	10 00	251,130	38,345	10 00	383,450
Butter.....bbls.	547	35 00	19,145	1,506	35 00	52,710
Beeswax....	9	50 00	450	.....	.....	.....
Bran.....sacks	.....	.....	.....	216,677	1 25	270,846
Beef.....bbls.	50,671	13 00	658,723	35,318	12 00	423,816
Beef.....trcs.	3,883	20 00	77,660	9,616	18 00	173,088
Beef, dried.....lbs.	27,700	10	2,770	93,726	10	9,372
Cotton .....bales	1,774,298	53 00	92,037,794	2,255,448	48 50	109,389,228
Corn meal. ...bbls.	72	5 00	360	538	3 00	1,614
Corn in ear.... ..	5,000	1 00	5,000	36,092	1 00	36,092
Corn, shelled..sacks	759,438	2 00	1,518,876	1,722,039	1 75	3,013,568
Cheese.....boxes	60,533	3 50	211,865	35,596	3 50	124,586
Candles.....	86,434	8 00	691,472	110,405	7 00	772,835
Cider.....bbls.	21	8 00	168	.....	....	.....
Coal, western.....	2,145,000	45	965,250	2,900,000	40	1,160,000
Dried apples & p'ch's	468	12 00	5,616	1,121	12 00	13,452

Articles.	1859. Amount.	Av. price.	Value.	1860. Amount.	Av. price.	Value.
Feathers .....bags	1,373	50 00	68,650	936	22 00	20,592
Flaxseed .....trcs.	292	12 00	3,504	375	12 00	4,500
Flour.....bbls.	1,084,978	6 00	6,509,868	965,860	6 25	6,036,625
Furs hhds., bdls., &c.	229	....	85,000	151	15 00	2,265
Glassware.....pkgs.	61,029	5 00	305,145	68,879	5 00	344,395
Hemp.....bales	11,220	20 00	224,400	4,883	21 00	102,543
Hides.....No.	109,232	3 00	327,696	163,568	3 00	490,704
Hay .....bales	107,141	3 75	401,778	152,659	4 70	717,497
Iron, pig.....tons	488	30 00	14,640	643	30 00	19,290
Lard....bbls. & trcs.	78,564	30 00	2,356,920	65,784	30 00	1,973,520
Lard .....kegs	63,592	6 00	381,552	90,699	6 00	544,194
Leather.....bdls.	6,985	30 00	209,550	6,115	30 00	183,450
Lime, western .bbls.	27,182	1 10	29,900	33,143	1 65	54,685
Lead.....pigs	75,023	6 00	450,138	80,964	5 00	404,820
Lead, bar.kegs & bxs.	410	22 00	9,020	1,658	17 50	29,015
Lead, white....kegs	978	2 00	1,956	1,842	3 00	5,526
Molasses.(crop,).gals.	24,887,760	26	6,470,817	17,858,100	35	6,250,335
Oats..bbls. & sacks	249,736	1 50	374,604	659,550	2 00	1,319,100
Onions .....bbls.	22,196	5 00	110,980	26,401	6 00	158,406
Oil, linseed.....	598	30 00	17,940	1,020	30 00	30,600
Oil, castor.....	1,213	50 00	60,650	571	44 00	25,124
Oil, lard	20,377	36 00	733,572	9,333	34 00	317,322
Potatoes.....	123,502	4 00	494,008	207,698	2 75	571,169
Pork ...trcs. & bbls.	266,580	17 00	4,531,860	216,523	17 00	3,680,891
Pork.....boxes	175	40 00	7,000	71	40 00	2,840
Pork.....hhds.	2,828	70 00	197,960	1,874	70 00	131,180
Pork in bulk....lbs.	1,969,550	7	417,868	3,803,500	7	266,245
Porter & ale....bbls.	11,466	10 00	114,660	20,940	10 00	209,400
Packing yarn...reels	1,673	5 00	8,365	3,748	6 00	22,488
Rum..... .....bbls	61	20 00	1,220	475	20 00	9,500
Skins, deer ...packs	2,184	20 00	43,680	1,542	20 00	30,840
Shingles.....M.	6,000	3 50	21,000	7,000	4 00	28,000
Shot .....kegs	2,375	20 40	48,450	4,001	20 40	81,620
Soap.....boxes	13,983	4 00	55,932	12,202	7 00	85,414
Staves .....M.	13,706	70 00	959,420	10,178	50 00	508,900
Sugar, (crop,)..hhds.	362,296	69 00	24,998,424	221,840	82 00	18,190,880
Spanish moss..bales	4,307	16 00	68,912	8,604	14 00	120,456
Tallow.....bbls.	855	30 00	25,650	1,025	30 00	30,750
Tobacco, leaf...hhds.	62,925	110 00	6,921,750	67,883	95 00	6,448,885
Tobacco, strips.....	11,000	200 00	2,200,000	10,908	185 00	2,017,980
Tobacco, stems.....	2,000	20 00	40,000	2,164	15 00	32,460
Tobacco, chew'g..bxs.	9,208	22 00	202,576	14,544	15 00	218,160
Twine ..bdls. & bxs.	4,233	9 00	38,097	3,508	9 00	31,572
Vinegar .....bbls.	1,416	4 00	5,664	1,206	4 00	4,824
Wool.....bags	.....	....	.....	3,753	35 00	131,355
Whisky .....bbls.	152,915	9 00	1,376,235	185,042	9 00	1,665,378
Wheat. bbls. & sacks	29,585	2 25	66,566	13,116	2 25	29,511
Other various articles, estimated at.....			6,500,000			7,750,000
Total value			$172,952,664			$185,211,254

COMPARATIVE STATEMENT OF VALUE OF IMPORTS THROUGH THE CUSTOM-HOUSE, NEW ORLEANS, FOR THE FISCAL YEARS ENDING ON THE 30TH OF JUNE, FOR SIX YEARS.

	1855.	1856.	1857.	1858.	1859.	1860.
Dutiable..	6,939,002	8,990,583	16,417,035	10,247,093	9,952,646	15,196,518
Free.....	4,297,170	6,417,596	6,637,076	4,818,069	6,725,446	5,437,875
Specie....	4,687,436	1,775,148	1,927,039	4,520,851	1,671,424	2,286,456
Total	12,923,608	17,183,327	24,981,150	19,586,013	18,349,516	22,920,840
Exports..	55,688,552	80,547,963	91,514,186	88,382,438	101,634,952	108,393,567

COMMERCE OF MOBILE.

The imports and exports of the port of Mobile have been for the past eighteen months as follows:—

	Imports.	Exports.		Imports.	Exports.
1859.....	$982,140	$30,079,711	1860, 6 mos..	$617,280	$25,908,820
1858.....	634,626	28,553,736	1859, 6 mos..	549,110	17,287,103

The exports for the first six months of 1860 have exceeded those of the previous year $8,681,717. The exports of cotton for the year ending August 31, were as follows:—

EXPORTS OF COTTON FROM THE PORT OF MOBILE TO FOREIGN PORTS, WITH THE WEIGHT AND VALUE ATTACHED, FOR THE YEAR ENDING AUGUST 31ST, 1860.

	Bales.	Pounds.	Value.
Great Britain, in American vessels....	239,566	154,718,053	$16,921,794
" " British "	146,097	75,760,927	9,021,438
Total to Great Britain.....	445,663	230,478,980	$25,943,232
France, in American vessels.....	146,106	75,790,048	$8,392,574
" foreign "	2,812	1,467,542	167,100
Total to France.....	148,918	77,257,590	$8,559,674
Spain.....	24,359	12,622,316	1,501,936
Austria.....	9,021	4,769,490	524,799
Sardinia.....	5,292	2,709,678	271,699
Bremen.....	9,977	5,249,102	583,452
Sweden.....	4,835	2,493,840	288,277
Russia.....	1,533	803,772	94,218
Belgium.....	3,980	2,074,092	219,563
Holland.....	1,481	775,000	89,916
Hamburg.....	4,422	2,325,072	256,810
Total to other foreign ports.....	64,900	33,822,362	$3,830,670
Total foreign.....	659,481	341,558,932	38,333,576

TRADE OF THE SANDWICH ISLANDS.

The official report gives the following biennial returns of the trade of the Islands:—

IMPORTS FOR THE TWO YEARS ENDING DEC. 31ST, 1859.

In 1858.....		$1,089,660 60	
In 1859.....		1,555,558 74	
			$2,645,219 34

EXPORTS FOR THE SAME PERIOD.

In 1858, foreign goods.....		$257,115 97	
Domestic produce.....	$306,716 11		
" " furnished as supplies.....	223,250 00		
	529,966 11		
		787,082 08	
In 1859, foreign goods.....		302,754 06	
Domestic produce.....	436,775 21		
" " furnished as supplies.....	191,800 00		
	628,575 21		
		931,329 27	
			1,718,411 35
Showing excess of imports for this biennial term to be.....			$926,807 99

From 1853 the imports and exports were as follows:—

Year.	Imports.	Exports. Foreign.	Exports. Domestic.	Exports. Total.	Excess of Imports.
1853..	$1,281,951 18	$191,597 66	$281,599 17	$472,996 83	$808,954 35
1854..	1,396,786 24	311,092 97	274,029 70	585,122 67	811,663 57
1855..	1,306,355 89	297,859 82	274,792 67	572,652 49	733,703 40
1856..	1,152,412 99	204,545 88	378,998 34	583,554 22	568,868 77
1857..	1,130,165 41	222,222 19	422,303 91	645,526 10	484,639 31
1858..	1,089,660 60	257,115 97	529,966 11	787,082 08	302,578 52
1859..	1,555,558 74	302,754 06	628,575 21	931,329 27	624,229 47

This statement shows a gratifying increase in our domestic exports, and a gradual decrease in the excess of imports until the last year, when the excess suddenly run up from $302,578 32 to $624,229 47. This is doubtless to be attributed to the caution of those engaged in commerce, in laying in large stocks of merchandise in anticipation of the change in the tariff, now near at hand.

Since the last report from this department, another market has been opened near us, which promises to be a large consumer of our domestic productions, without calling on us to take anything of foreign manufacture in exchange. I allude to British Columbia, which, from the discovery of gold within its borders, began at once to afford a market for our cattle and the products of our soil.

It is to the agricultural and planting interests that we must chiefly look for getting rid of this excess of imports. No policy should therefore be adopted to fetter them; on the contrary, they should receive every encouragement within the limits of legislative discretion.

The new tariff established by the civil code will go fully into effect on the 25th of June next. But little addition will for some time be made to the revenue from the increased rate of duties which it provides, owing to the large importations which have lately been made, doubtless, as already intimated, with reference to the change. The last quarters of the fiscal year will however be likely to demonstrate its probable bearings upon the trade of the country.

SPAIN—ITS TRADE AND AGRICULTURE.

According to the official returns of Spain for the year 1857, the percentage of uncultivated land was 45.8; land under tillage, 26.6; grass lands, 14.0; woods, copse, garden, etc., 9.0; vinyards, 2.8; olive-grounds, 1.8. The total superfices of ground cultivated as vinyards in 1857 was 3.500,524 English acres; the corresponding acreage under vine cultivation in France was in the same year 5,387,230 acres. The value of wine exported from Spain in 1857 was about $23,000,000; that of wine exported from France in the same year about $30,000,000.

The total imports in 1850 were $33,600,000; in 1857, $77,770,000; being an increase in seven years of 131 per cent. The total exports in 1850 were $24,435,000; in 1857, $58,430.000; increase in seven years 139 per cent. Of the imports for 1857 Europe supplied $54,904,000; Asia, $1,250,000; Africa, $1,210,000; America, $20,402,000, including $7,857,000 from the United States. Of the exports for 1857 Europe received $38,015,000; Asia, $565,000; Africa, $1,210,000; America, $18,660.000, including $3,396,500 sent to the United States.

Our Spanish cousins in 1858 possessed 13,749,959 sheep, 2,733,966 goats, 1,380,861 cattle, 1,018,388 swine, 491,690 asses, 415,978 mules, and 268,248 horses.

The number of schools of first instruction in Spain in 1855 was 20,753, affording instruction to 684,657 boys and 320,317 girls. Of these schools 16,709 were public, 3,624 private, and 420 under the care of religious congregations

and communities. Taking the whole population of Spain, the average proportion of schools to inhabitants was 1 in 745, and the average proportion of scholars to inhabitants, 1 in 15. The total expense of the public schools amounted to $1,615,000.

The number of persons actively employed in ecclesiastical functions, including monks and nuns, in 1768, was 209,988, or about 1 in 43 of the whole estimated population. The number similarly employed in 1857 was 56,254, or in the proportion of 1 to 275 of the whole population. It may also be stated, in connection with this subject, that, a few years ago, the Spanish government deprived the ecclesiastical bodies of almost all the land they possessed. The sale of these lands to the laity has already realized to the government nearly $100,000,000. In compensation for the lands taken from ecclesiastics, the government pays to each of those who had any interest in them a certain annuity, which amounts, on the average, to about $90.

There are in Spain 431 English miles of navigable canals; 524 miles of railroads finished and at work, 510 miles in progress—portion at work; 983 completed but not at work; and 1,580 miles more authorized—total, 3,938 miles. There are also 3,933 miles of telegraph lines in operation.

The total revenue of Spain for 1859 was estimated at $122,000,000; the total expenditure $123,000,000.

EXPORT OF BREADSTUFFS FROM THE UNITED STATES,

TO GREAT BRITAIN AND IRELAND, FROM SEPT. 1, 1858, TO SEPT. 1, 1859.

From—	Flour, bbls.	Meal, bbls.	Wheat, bush.	Corn, bush.
New York	626,283	826	4,759,246	1,772,723
New Orleans	6,338	...	.....	140,069
Philadelphia	64,861	6	244,953	242,111
Baltimore	905	112	41,823	130,602
Boston	26,829	...	.....	1,050
Other ports	50	...	8,922	.....
Total, 1859-60	725,261	944	5,054,944	2,286,555
" 1858-59	102,032	23	468,788	320,681
Increase	623,229	921	4,586,156	1,965,874
Total, year ending Sept. 1, 1860	725,261	944	5,054,944	2,286,555
" " " 1859	102,032	23	468,788	320,681
" " " 1858	1,300,906	607	6,658,639	3,372,444
" " " 1857	863,179	686	7,567,901	4,793,134
" " " 1856	1,665,552	8,721	7,939,955	7,063,821
" " " 1855	170,329	5,536	317,713	6,843,242
" " " 1854	1,824,920	40,660	5,918,317	6,215,936
" " " 1853	1,618,060	683	5,543,460	1,517,087
" " " 1852	1,444,640	1,810	2,712,120	1,576,749
" " " 1851	1,581,702	5,553	1,523,908	2,368,860
" " " 1850	463,460	6,086	463,015	4,873,446
" " " 1849	1,118,316	86,058	1,091,335	12,729,626
" " " 1848	183,533	105,350	251,622	4,581,367
" " " 1847	3,150,689	847,280	4,015,134	17,298,744
TO THE CONTINENT.				
New York	42,081	178,031	17,286	.....
Other ports to latest dates	7,162	.....	2,072	.....
Total, 1859-60	49,243	178,031	19,358	.....
" 1858-59	51,388	57,845	25,519	.....
" 1857-58	303,100	390,428	16,848	13,100
" 1856-57	483,344	2,875,653	543,590	216,162
" 1855-56	748,408	2,610,079	282,083	1,975,178
" 1854-55	7,763	4,972	308,428	35,569

JOURNAL OF INSURANCE.

CONNECTICUT INSURANCE LAW.

AN ACT IN ADDITION TO "AN ACT CONCERNING FOREIGN INSURACE COMPANIES."

SECTION 1. *Be it enacted by the Senate and House of Representatives in General Assembly convened,* Every person who shall act as agent, in any city or town in this State where a fire department exists, for or on behalf of any corporation organized under the laws of the State of New York, to effect insurance in this State against loss or injury by fire, shall, in the month of January in each and every year, render an account, verified under oath to be a just, true, and complete account, to the treasurer of the city in which such agent shall act as aforesaid, or, in case such agent shall so act without the limits of any city, to the treasurer of the town in which such agent shall so act, of all the premiums which, during the year ending on the next preceding 31st day of December, shall have been received by such agent or person, or by any other person for him, or shall have been agreed to be paid, for any insurance against loss or injury by fire in this State, effected or agreed to be effected by him as such agent; and such agent shall, in the month of January in each and every year, pay to the treasurer to whom the said account is hereby required to be rendered, the sum of two dollars on the hundred dollars, and at that rate upon the amount of all premiums received by him, or by any other person for him, or agreed to be paid, for any insurance effected or agreed to be effected by him as such agent as aforesaid. And all sums paid to said treasurers under the provision of this act shall be applied, under the direction of the common council of the city, or the selectmen of the town, (as the case may be,) to defray the expenses of the fire department in such city or town.

SEC. 2. No person shall act as agent for or on behalf of any corporation organized under the laws of the State of New York, to effect insurances in this State, as aforesaid, until he shall have executed and delivered to the treasurer, to whom, by the provisions of the preceding section of this act, said account is to be rendered and said sum paid, a bond in the penal sum of five hundred dollars, with such sureties as said treasurer shall approve, with a condition that he will comply with the provisions of this act; and every person who shall effect, agree to effect, promise, or procure any insurance specified in the preceding section of this act, from and after the first day of August next, without having executed and delivered the bond hereby required, shall forfeit and pay the sum of two hundred dollars for each offence, to be sued for and collected by said treasurer in his own name, in an action on this statute; and such penalty when collected shall be applied to the same purposes, and in the manner therein provided, as the sum required to be paid by said agent in the preceding section of this act.

SEC. 3. Every person who shall act as agent for or on behalf of any corporation organized under the laws of the State of Rhode Island, to effect insurances in this State, shall, on the first Monday in October in each year, during the continuance of his agency, make a return to the Controller of Public Accounts, verified under oath to be a just, true, and complete account of the amount insured by him as such agent in this State, and of the amount of premiums and assessments received by him as such agent during the year next preceding said first Monday in October; and shall, at the same time, pay to the Treasurer of the State, for the use of the State, a tax of 2 per cent on the gross amount of said premiums and assessments. And if any such agent shall neglect to make such returns and payments as are hereby required in this section, he shall forfeit to the State, for the use of the State, five hundred dollars, to be recovered in the name of the treasurer by action on this statute.

SEC. 4. If any person acting as agent, as designated in the first or third sec-

tions of this act, shall neglect or refuse to comply with any of the provisions of this act, the treasurer, to whom said account is to be rendered and said sum paid by the provisions of this act, may apply to any judge of the Superior Court to enjoin such person against effecting insurances as such agent; and it shall be the duty of the judge to whom such application is made, upon finding that such agent has neglected or refused to comply with the provisions of this act, to grant said injunction, and said judge, or, in case of his inability to act, any other judge of the Superior Court, may dissolve said injunction, whenever said agent shall comply with the provisions of this act. The fact of such agency shall be deemed to be sufficiently proved in any case that may arise under the provisions of this act, by any person having acted as such agent, or held himself out or advertised as such agent.

SEC. 5. The tax hereby imposed upon such agent shall be in lieu of all other taxes now required to be paid by them as such agents; and all acts and parts of acts, so far as they are inconsistent herewith, are, to that extent, repealed.

Approved, June 23d, 1860.

FIRE INSURANCE DIVIDENDS.

The aggregate dividends of eighteen fire insurance companies for the month of August amounted to $226,000, or about seven per cent on the total capital of $3,260,000; or over eight per cent upon the capital declared upon.

For September, the dividends are nearly nine per cent on the average.

DIVIDENDS IN AUGUST, 1860.

	Receipts. 1859.	Losses. 1859.	Shares Sept., 1860.	Capital.	Rate per ct.	Amount dividend.
Astor	$68,000	$63,000	124 a 128	$150,000	8	$12,000
Beekman	49,000	58,000	85 a ...	200,000	5	10,000
Broadway	58,000	54,000	120 a 127	200,000	8	16,000
City	74,000	78,000	145 a ...	210,000	10	21,000
Exchange	65,000	61,000	100 a 103	150,000	6	9,000
Greenwich	46,000	49,000	110 a 115	200,000	5	10,000
Indemnity	44,000	43,000	80 a ...	150,000	5	7,500
Irving	97,000	104,000	100 a 105	200,000	5	10,000
Lenox	44,000	50,000	85 a 92	150,000	..	.....
Lorillard*	88,000	88,000	102½ a 106	200,000	19½	39,000
N. Y. Fire & Marine	80,000	94,000	135 a ...	200,000	10	20,000
Niagara	95,000	105,000	135 a 145	200,000	10	20,000
Peter Cooper	37,000	32,000	97 a 102	150,000	6	9,000
Rutgers	77,000	73,000	115 a 120	200,000	7	14,000
Security	130,000	128,000	106 a 112	200,000	4½	9,000
St. Mark's	56,000	61,000	... a 104	150,000	5	7,500
St. Nicholas	57,000	58,000	... a 83	150,000	..	.....
Stuyvesant	65,000	48,000	105 a 110	200,000	6	12,000
Total				$3,260,000		$226,000

DIVIDENDS IN SEPTEMBER, 1860.

Atlantic	$112,000	$107,000	150 a 165	$150,000	10	$15,000
Corn exchange	113,000	109,000	136 a 145	200,000	10	20,000
Grocers'	44,000	43,000	105 a 110	200,000	6	12,000
Jefferson	82,000	88,000	... a 160	200,000	10	20,000
Phenix	159,000	166,000	132½ a ...	200,000	10	20,000
Germania	80,000	18,000	100 a ...	200,000	6	12,000
Total	$1,770,000	$1,778,000		$1,150,000		$99,000

* The dividend of the Lorillard was a surplus dividend of 19½ per cent, being the total accumulations; that of the Security was in addition to a scrip dividend of 27 per cent.

NAUTICAL INTELLIGENCE.

MINOT'S LEDGE, ENTRANCE TO BOSTON BAY.

Information has been received at this office, from Capt. B. S ALEXANDER, Corps of Engineers, of the completion of the lighthouse on the outer Minot's Ledge, one of the Cohasset Rocks. The tower is of a dark gray granite, 30 feet in diameter at the base, 89 feet 7 inches high above mean low water. It is surmounted by a bronze lantern 22 feet 7 inches high, making the total height of the structure above mean low water 112 feet 2 inches. The illuminating apparatus is catadioptric of the second order of the system of Fresnel, and will show a fixed white light. The focal plane is 84 feet above the mean high water, and the light should be visible at high water, from a point 15 feet above the surface of the sea, at a distance of 15 nautical miles. The light will be exhibited for the first time from sunset to sunrise on the 15th day of November, 1860, and every night thereafter. By authority of the act of Congress approved September 28, 1850, the light at Scituate will be extinguished on the exhibition of the Minot's Ledge light, and the light-vessel now stationed off Minot's Ledge will be withdrawn and discontinued at the same time. The new light bears from Boston lighthouse E. S. E. ½ S., distant about 9 miles. It is in latitude 42° 16′ 9″ north; longitude 70° 45′ 14″ east from Greenwich. By order of the Lighthouse Board,

WM. F. SMITH, Engineer, Secretary.

WASHINGTON, August 23, 1860.

THE ANVIL ROCK, CAPE POINT.

The following important hydrographical notice by Lieutenant SKEAD, the Admiralty Surveyor, appeared in the Cape of Good Hope *Government Gazette*, of the 20th April. Addressing Admiral GREY, he says:—

I have fixed two shoal rocky patches (which break in rough weather) in the vicinity of the Anvil Rock, the positions of which are as follows:—North Patch, Bellows Rock, S. 48°, W. 1′ 7.10; Cape Point light, N. 54°, W. 1′ 5.10; West Patch Bellows, S. 59°, W. 1′ 6.10; Cape Point light, N. 48°, W. 1′, 8.10. These patches. with the Anvil Rock, together cover an area of 67 acres. The known existence of these rocky patches renders caution more than ever necessary to vessels passing between Cape Point and the Anvil, as they have only 1′ 1.10 mile between them and the Dias Rock. Coming from the westward outside the Anvil Rocks, a ship will be clear of them to the eastward, when Vasco de Gama Peak (Pt. C.) a peak one mile N. W. by W. from the Cape Point light, opens to the eastward of the peak on which the light-tower stands.

DISCONTINUANCE OF A LIGHTHOUSE.

The third section of the act of Congress, approved March 3, 1859, making appropriations "for lighthouses, lightboats, &c., authorized the Secretary of the Treasury, in his discretion, on the recommendation of the Lighthouse Board, to discontinue, from time to time, such lights as might become useless by reason of the mutations of commerce and changes of channels of harbors, and other causes; and the Lighthouse Board, at its meeting held on the 2d instant, having ordered the following named light to be discontinued, viz., the beacon light at Set-Off-Point, Newark Bay, it is ordered and directed that said light be discontinued on and after the 1st day of August next. By order,

R. SEMMES, Secretary.

WASHINGTON, July 7, 1860.

MARINE LOSSES.

RECAPITULATION OF LOSSES IN JULY, 1860.

	Vessel & freight.	Cargoes.	Total.
11 ships	$225,000	$241,000	$466,000
6 steamers	306,000	1,013,000	1,319,000
12 barks	129,200	292,000	421,200
10 brigs	38,100	105,000	143,100
15 schooners	50,900	11,000	61,900
Total	$749,200	$1,662,000	$2,411,200

RECAPITULATION OF LOSSES SINCE JANUARY, 1859.

	Vessel & freight.	Cargoes.	Total.
January	$1,362,700	$1,419,400	$2,782,100
February	1,230,600	1,246,700	2,477,300
March	699,400	1,159,000	1,858,400
April	642,400	599,560	1,241,960
May	1,165,300	1,393,900	2,559,200
June	1,413,400	1,042,500	2,455,900
July	1,975,100	2,252,600	3,227,700
August	2,170,150	1,044,150	3,214,300
September	1,023,400	1,242,900	2,266,300
October	1,791,700	2,059,600	3,851,300
November	3,203,100	5,368,160	8,571,260
December	1,223,900	749,950	1,973,850
Total 1859	$17,901,150	$19,578,420	$37,479,570
January	$1,223,900	$749,950	$1,973,850
February	1,295,000	1,114,000	2,409,000
March	1,587,450	1,894,500	3,431,950
April	783,100	1,480,700	2,263,800
May	946,300	1,243,500	2,189,800
June	613,300	859,000	1,472,300
July	749,200	1,662,000	2,411,200
Seven months, 1860	$7,088,250	$9,003,650	$16,151,900
Same time, 1859	8,488,900	9,113,660	17,602,560

LOSS ON WESTERN WATERS.

For the six months of the present year just closed, the following are the statistics of losses carefully prepared by the editor of the Louisville *Journal*:—

Steamboats sunk and damaged by fire	5
Steamboats snagged and sunk	47
Steamboats run into bank	6
Steamboat collisions	7
Steamboats burned	20
Steamboats sunk on falls	2
Steamboats sunk by storms	20
Steamboat explosions	6
Machinery broken	10
Collision with bridges	2
Total steamboats	125
Coal-boats lost	127
Flat-boats and barges	23
Number of lives lost	136
Estimated aggregate loss	$1,782,500

COMMERCIAL REGULATIONS.

RATES OF STORAGE AND LABOR.

UNITED STATES PRIVATE BONDED WAREHOUSES, RATES OF STORAGE AND LABOR CHARGEABLE ON UNCLAIMED GOODS. APPROVED BY THE CHAMBER OF COMMERCE.

	Store.	Labor.	Store.	Labor.
Absinthe.....cents	See cordials.			
Ale or porter, in hhds	20	20	..	..
Ale, (bottles,) in bbls	8	8	..	..
Ale, (bottles,) in casks	15	15 to	20	20
Alcohol, in puncheons	30	30	40	40
Anvils, loose	4	4	..	..
Anvils, in casks	30	30	40	40
Antimony, in casks	20	20	30	30
Almonds, in frails	4	4	6	6
Almonds, in bales	10	10	20	20
Almonds, in casks	10	10	15	15
Almonds, in bags	4	4	..	..
Argols, in casks	20	20	30	30
Arrowroot, in kegs, Ber	5	5	8	8
Balsam capivi, in tin cans	6	6	..	..
Balsam capivi, in bbls	15	15	25	25
Balsam capivi, in hhds	30	30	40	40
Bark, (Peruvian,) in bags	4	4	..	..
Bark, (Peruvian,) in ceroons	5	5	10	10
Beads, (Trieste,) in cases	10	10	20	20
Beer, in bbls	10	10	..	..
Beer, in hhds	20	20	..	..
Beeswax, in bales	10	10	20	20
Blankets, in bales	30	30	..	..
Blankets, in trusses, two bales each	30	30	40	40
Boots and shoes, in cases	10	10	15	15
Bottles, in hampers	25	25	..	..
Bottles, in crates	20	25	..	..
Borax, in casks	10	10	20	20
Borax, in cases	5	5	..	..
Brandy, in pipes	35	35	..	..
Brandy, in hf. pipes	25	25	..	..
Brandy, in qr. casks	12½	12½	..	..
Brandy, in eighth casks	6¼	6¼	..	..
Burlaps, in bales	30	30	50	50
Butter, in kegs	3	3	5	5
Cassia, in mats, (for 100 mats)	25	25	..	..
Cassia, in chests	5	5	8	8
Cassia, in rolls or bales	8	8	10	10
Camphor, in cases	5	5	8	8
Capers, in boxes	1½	1½	3	3
Carboys, (vitriol, &c.)	20	20	50	50
Canvas, in bolts	3	3	..	..
Cantharides, in cases	10	10	20	20
Candles, in boxes	2	2	6	6
Cham. flowers, in bales	10	10	20	20
Carpets, in rolls, (single)	8	8	10	10
Carpets, in cases, (single)	25	25	30	30
Carpets, in bales	30	30	40	40
Cheese, in bxs., (Dutch)	8	8	10	10
Cheese, in casks	15	15	25	25
Chicory, in casks	15	15	20	20
Champagne, in baskets	3	3	..	..
Champagne, in cases	3	3	..	..
Chocolate, in casks	15	15	..	..

	Store.	Labor.	Store.	Labor.
Chocolate, in cases	2	2 to	3	3
Chain cables, per ton	37½	75	..	..
Citron, in cases	10	10	20	20
Cloves, in bags	4	4	8	8
Cloths, in bales	20	20	30	30
Cloths, in cases, (English)	20	20	30	30
Cocoa, in bags	4	4	8	8
Cochineal, in ceroons	6	6	10	10
Codfish, (dry,) per quintal	4	5	..	..
Coffee, in bags	3	3	4	4
Crockery, in crates	30	30	40	40
Crockery, in casks	30	30	40	40
Crockery, in cases	20	20	30	30
Cordials, in cases of 1 doz	2½	2½	3	3
Cordials, in hhds	15	15	20	20
Cordials, in puncheons	30	30	40	40
Corks, in bales	10	10	20	20
Corkwood, bdls. or bales	5	5	15	15
Copper, in pigs, per two hundred lbs	25	40	..	..
Copper, in sheets, per ton	35	35	..	..
Copperas, in casks	20	20	40	40
Cubebs, in bales	10	10	20	20
Currants, in bbls	5	5	6	6
Currants, in caroteels	20	20	..	..
Cream tartar, in casks	20	20	40	40
Cinnamon, rolls or bales	8	8	15	15
Dates, in frails	10	10	..	..
Demijohns, (empty,) 5 gal	1½	1½	..	..
Demijohns, (empty,) 3 gal	1	1	..	..
Demijohns, (empty,) under 3 gal	¾	1	..	..
Dry goods—				
Cottons, in cases				
Linens, in cases				
Hosiery, in cases	15	20	25	30
Handkerchiefs, in cases				
Gloves, in cases				
Woolen hosiery, casks	20	20	30	30
Dundee linens, in bales, all sizes, average	30	30	40	40
Dunnage mats, each	½	½	..	..
Earthenware	See crockery.			
Emery, in kegs	4	4	..	..
Figs, in drums	½	½	..	..
Figs, in frails	5	5	..	..
Filberts, in bags	5	5	10	10
Flour, in bbls	4	4	..	..
Flour, (Sago,) in bags	3	3	..	..
Fish, (cod,) per quintal	4	5	..	..
Fish, (herrings,) in kegs	2	2	5	5
Fish, (mackerel,) in bbls	8	8	..	..
Fish, (mackerel,) in ½ bbls	4	4	..	..
Furs, in casks	20	20	35	35
Furs, in cases	20	20	25	25
Furs, in bales	15	15	30	30
Flocks, woolen, in bales	20	20	25	25
Flax, in bales	20	20	..	..
Felt, in bales	20	20	25	25
Fustic, per ton	25	30	..	..
Gomboge, in cases	8	8	10	10
Gin, in pipes	35	35	..	..
Gin, in ½ pipes	30	30	..	..
Ginger, in bags	4	4	..	..
Ginger, (E. I,) in cases	4	4	10	10
Gum Arabic, in cases	10	10	15	15

	Store.	Labor.	Store.	Labor.
Gums, in casks	20	20 to	25	25
Guns, in cases	15	20	20	25
Gunny bags—				
In bales, (2 bush. bags)	10	10	..	..
In bales, (3 bush. bags)	15	15	..	..
In bales, (4 bush. bags)	20	20	..	..
Glue, in casks	20	20	30	30
Gutta percha, loose, per one hundred pcs. average	30	30	50	50
Glass, (window,) in bxs	2	2	4	4
Glass, (plate,) in cases	20	20	50	50
Hardware, in casks	30	30	50	50
Hats—				
Maracaibo, in ceroons	12½	12½	20	20
Maracaibo, in cases	12½	12½	20	20
Panama, in cases	12½	12½	20	20
Panama, in ceroons	12½	12½	20	20
Hides, (Ox,) loose, each	1	1	..	..
Hides, (Deer,) in bales	15	15	25	25
Hides, (Deer,) in bundles	15	15	25	25
Hemp, (Manilla,) in bales	5	5	..	..
Hemp, (Italian,) in bales	10	10	20	20
Hemp, loose, per ton	100	75	..	..
Hops, in bales	15	15	20	20
Hops, do compressed	8	8	10	10
Hosiery, (woolen,) casks	20	40	30	40
Indigo, in ceroons	5	5	10	10
Indigo, in cases	10	10	15	15
Iron, in bars, per ton	25	37½	..	..
Iron, in rods, per ton	25	37	..	..
Iron, in sheets, per ton	25	37½	..	..
Iron, hoop, in bundles of 56 lbs	1	1	..	..
" " " 112 lbs	2	2	..	..
Iron, in pigs, per ton	25	37½	..	..
Ipecac, in ceroons	5	5	10	10
Iron, railroad	10	15	..	..
Iron, boiler plates, per ton	25	40	..	..
Iron rods, in coils, each	6	6	10	10
Iron wire, in mats	4	4	8	8
Jalap, in bales	8	8	15	15
Jewsharps, in casks or cases	20	20	30	30
Kirschenwasser, in cases, 1 dozen	2½	2½	3	3
" in hhds	20	20	..	..
Laces, in cases	15	15	20	20
Lard, in kegs	3	3	5	5
Lead, in pigs, per ton of 2,000 lbs	20	30	..	..
Lead, in sheets, or in rolls, per ton	50	75	..	..
Lead pipe, in cases	30	30	..	..
Lithograph stones, in cases	25	25	50	50
Licorice paste, in cases	8	8	10	10
Licorice sticks, in cases	8	8	..	..
Licorice roots, in bundles	5	5	..	..
Licorice root, in bales, each	8	8	..	..
Linens, (Dundee,) in bales, average	30	30	40	40
Linens, in cases	15	15	30	30
Looking-glass plates, cases	20	20	50	50
Logwood, per ton	25	30	..	..
Lignumvitæ, per 2,000 lbs	20	30	..	..
Macaroni, (Italian,) in cases	4	4	6	6
Macaroni, (French,) in cases	3	3	4	4
Madder, (French,) casks	50	50	75	75
Madder, (German,) in casks	35	35	40	40
Magnesia, in cases	10	10	20	20
Manna, in cases	10	10	20	20

	Store.	Labor.	Store.	Labor.
Marbles, in casks	25	25 to	30	30
Matting, East India, in rolls, ¾ yard	3	3	..	..
" " " 4-4ths	4	4	..	..
" " " 5-4ths	5	5	..	..
Mustard, in cases	3	3	5	5
Musical instruments, in cases	30	30	50	50
Nails, in kegs	2	2	..	..
Nails, in bags	2	2	..	..
Nutgalls, in bags	3	3	4	4
Nutmegs, in cases	8	8	10	10
Nutmegs, in barrels	10	10	..	..
Nutmegs, in casks	20	20	25	25
Ochre, in casks	15	15	25	25
Oil, (olive,) in cases	2	2	3	3
Oil, (olive,) in baskets	1½	2	2	3
Oil, (olive and other,) casks	15	15	30	30
Oil, (essence,) in cases	6	6	10	10
Oil vitriol	See carboys.			
Olives, in cases	2	2	..	..
Olives, in jars	1	1	..	..
Olives, in kegs	2	2	..	..
Opium, in cases	10	10	20	20
Paints, in barrels	10	10	15	15
Paints, in kegs	5	5	..	..
Paper, in bales	8	8	20	20
Paper, in cases	8	8	20	20
Paper cigars	See segars.			
Peas, (preserved,) in cases	5	5	..	..
Palm leaf, (Esteras,)	4	4	..	..
Palm leaf, per bundle	1	1	..	..
Pencils, (lead,) in cases	10	10	20	20
Pepper, in bags	3	3	4	4
Peruvian bark, in bags	4	4	..	..
Peruvian bark, ceroons	5	5	10	10
Pipes, in boxes	1	1	..	..
Potash, (hydrate of,) in cases	15	15	20	20
Prunes, in casks	15	15	20	20
Prunes, in bbls	6	6	..	..
Prunes, in ½ bbls Prunes, in ¼ bbls	2	2	3	3
Prunes, (in paper,) cases	5	5	10	10
Prunes, (in glass,) cases	8	8	10	10
Pimento, in bags	3	3	4	4
Pianos	100	200	..	..
Quinine, (bottle,) cases	6	6	12	12
Quicksilver, in flasks	5	5	..	..
Raisins, in boxes	¾	1	..	..
Raisins, in ½ and ¼ boxes	½	¼	..	..
Raisins, in kegs	3	3	..	..
Raisins, in ½ kegs	2	2	..	..
Rhubarb, in cases	6	6	20	20
Rum (Jamaica,) in puncheons	35	35	..	..
" (St. Croix,) "	35	35	..	..
" (Bay,) "	35	35	..	..
Sardines, (Guilloux,) in cases	5	5	..	..
Sardines, (A. Camus,) in cases	4	4	..	..
Sago, in cases	8	8	10	10
Sarsaparilla, (Honduras,) in bales	8	8	10	10
Sago flour, in bags	3	3	4	4
Segars, in cases	20	20	50	50
Segars, loose, per box, all sizes	½	½	..	..
Segars, in bbls. and paper "	8	8	10	10
Shot, in frails of 8 bags	10	10	..	..

	Store.	Labor.	Store.	Labor.
Silks, (India,) in cases	8	10 to	..	..
Silks, (English,) in cases	20	20	..	..
Silks, (French,) in cases	20	20	..	..
Silks, (Italian,) in cases	20	20	..	..
Silks, (raw,) in ceroons	8	8	10	10
Soap, in boxes	2	2	3	8
Straw goods, in cases	10	10	30	30
Steel, (Milan,) in boxes	4	4	..	..
Steel, (English,) in cases	20	25	25	30
Steel, in bundles, per bdle	3	3	4	4
Skins, (deer,) in bales	15	15	20	20
Spelter, in plates, 2,000 lbs	20	37½	..	..
Sugar, (Manilla,) in bags	2½	2½	3	3
Sugar, (Brazil,) in bags	3	3	4	4
Sugar, (Dutch,) in tcs	15	20	25	30
Sugar, (raw,) in hhds	30	30	35	35
Sugar, in boxes	8	10	10	10
Suspenders, in cases	10	10	20	20
Tea, in chests	4	4	..	..
Tin plates, in boxes	1½	2	2	2
Tin, (Banca,) per 2,000 lbs	20	37½	..	..
Tonqua beans, in casks	10	10	20	20
Toys, in cases } average	25	25	30	30
Toys, in casks }				
Twine, in bales	10	10	30	30
Tobacco, in cases	10	10	20	20
Tobacco, in ceroons or bales	4	4	6	6
Valerian, in bales	10	10	25	25
Vermicelli, (French,) in cases	3	3	4	4
Vermicelli, (Italian,) in cases	4	4	6	6
Vinegar, in hhds	20	20	..	..
Vinegar, in bbls	10	10	..	..
Watches and Jewelry, per case	75	50	..	..
White lead, in kegs	2	2	..	..
Whisky, in puncheons	40	40	..	..
Wine, in butts	40	40	..	..
Wine, in pipes	35	35	..	..
Wine, in ¼ pipes	15	15	..	..
Wine, in ½ pipes	7	7	..	..
Wine, in ¼ pipes	5	5	..	..
Wine, claret, in cases, 1 doz	2½	2½	..	..
Wine, hock, in cases, 1 doz	3	3	..	..
Wine, " " 2 "	5	5	..	..
Wine, claret and Sauterne, in hhds	20	20	..	..
Woolens, in casks	20	20	40	40
Woolens, in bales	20	20	40	40
Wool, in bales	15	15	30	30
Zinc, in pigs or plates, per ton 2,000 lbs	25	37½	..	..
Zinc, in casks	20	20	30	30

Articles not enumerated, at rate to correspond with those allowed for packages of similar size, or property of like general description. Such as are of unusual weight or size, as compared with enumerated articles, to be charged a reasonable compensation for labor and for storage according to space occupied, as compared with rates allowed for other storage.

All packages of ordinary and usual size to be charged at rates not exceeding those specified in the first column of prices, to wit, the lowest rates.

The higher rates indicated in the second columns are intended to apply only to packages of more than ordinary size or weight.

The rates for labor include both receipt and delivery of goods. The rates for storage are per month. If goods are taken from store at any time during the first of the month, one month storage chargeable; after the first, to be computed by the half month.

POSTAL DEPARTMENT.

PROGRESS OF THE ELECTRIC TELEGRAPH.

PRESCOTT'S *Electric Telegraph* gives the following sketch:—

At the commencement of 1848, it was stated that the length in operation in this country was about 3,000 miles. At the end of 1850, the lines in operation, or in progress, in the United States, amounted to 22,000 miles. In 1853, the total number of miles of wire in America amounted to 26,375.

It was but fifteen years since the first line of electric telegraph was constructed in this country; and at the present time there are not less than 50,000 miles in successful operation on this continent, having over 1,400 stations, and employing upwards of 10,000 operators and clerks. The number of messages passing over all the lines in this country annually is estimated at upwards of 5,000,000, producing a revenue of $2,000,000; in addition to which, the press pays $200,000 for public dispatches.

In Europe there are lines rivaling those in America. The electric wire extends under the English Channel, the German Ocean, the Black and Red seas, and the Mediterranean; it passes from crag to crag on the Alps, and runs through Italy, Switzerland, France, Germany, and Russia. India, Australia, Cuba, Mexico, and several of the South American States, have also their lines; and the wires uniting the Pacific and Atlantic States will shortly meet at the passes of the Rocky Mountains.

In Europe, Great Britain and Ireland have the greatest number of miles of electric telegraph—namely, 40,000. France has 26,000; Belgium, 1,600; Germany, 35,000; Switzerland, 2,000; Spain and Portugal, 1,200; Italy, 6,600; Turkey and Greece, 500; Russia, 12,000; Denmark and Sweden, 2,000. In Italy, Sardinia has the largest share of lines, having about 1,200 miles; and in Germany, after Austria and Prussia, the largest share belongs to Bavaria, which has 1,050. Saxony has 400 miles; Wurtemberg, 195. The distance between stations on lines of continental telegraph is from ten to twelve miles on the average, and the number of them is about 3,800.

In France the use of the electric telegraph has rapidly increased within the last few years. In 1851, the number of dispatches transmitted was 9,014, which produced 76,723 francs. In 1858, there were 463,973 dispatches transmitted, producing 3,516,634 francs. During the last four years, that is to say, since all the chief towns in France have been in electric communication with Paris, and consequently with each other, there have been sent, by private individuals, 1,492,420 dispatches, which have produced 12,528,591 francs. Out of the 97,728 dispatches exchanged during the last three months of 1858, 23,728 were with Paris, 15,409 with the thirty most important towns of France. These 15,409 dispatches are divided, as to their object or nature, as follows:—Private and family affairs, 3,102; journals, 523; commerce and manufactures, 6,132; Bourse affairs, 5,253; sundry affairs, 399.

In Great Britain, the rate of charges upon the telegraph lines was formerly very exorbitant, but within a few years a great improvement has taken place. According to the tariff, as last arranged by the Electric Telegraph Company, all messages, consisting of not more than twenty words, are transmitted to distances not exceeding 50 miles for 25 cents; to distances not exceeding 100 miles. for 62 cents; and to all greater distances, for $1 25. For each additional ten words, or fraction of ten words, proportionate charges are made. In certain exceptional cases the 25 cent charge is extended to much greater distances than 50 miles; and the 62 cent charge to much greater distances than 100 miles. These exceptions include towns of the highest commercial and manufacturing importance, with which a large telegraphic business must always be transacted. Thus, between London and Birmingham, (112 miles,) the charge is only 25 cents; and between London and Liverpool (210 miles,) London and Manchester (180 miles,) and London and Carlisle (309 miles,) the charge is only 62 cents.

Among the more recent improvements in the transaction of telegraphic business which have been made in England, the following may be mentioned:—

Franked message papers, prepaid, are now issued, procurable at any stationers. These, with the message filled in, can be dispatched to the office when and how the sender likes; and the company intend very quickly to sell electric stamps, similar to our postage stamps, which may be stuck on to any piece of paper, and frank its contents without any further trouble. Another very important arrangement, for mercantile men, is the sending of remittance messages, by means of which, money can be paid in at the central office in London, and, within a few minutes, paid out at Liverpool or Manchester, or by the same means sent up to town with the like dispatch from Liverpool, Manchester, Bristol, Birmingham, Leeds, Glasgow, Edinburg, Newcastle-on-Tyne, Hull, York, Plymouth, and Exeter. There is a money order office in the Lothbury establishment to manage this department, which will, no doubt, in all emergencies, speedily supersede the money order office, which works through the slower medium of the Post-office.

The actual celerity with which correspondence is transmitted, between London and parts of Europe more or less remote, may be judged from the fact that the Queen's speech, delivered at the opening of the recent Parliamentary session, was delivered verbatim, and circulated in Paris and in Berlin, before Her Majesty had left the House of Lords. Messages have been sent from the office in London to Hamburg, Vienna, and, on certain occasions, to Lemberg, in Galicia, being a distance of 1,800 miles, and their reception acknowledged by an instantaneous reply.

No limit has yet been found to aerial telegraphing; for, by inserting transferrers into the more extended circuits, renewed energy can be attained, and lines of several thousands of miles in length can be worked, if properly insulated, as surely as those of a hundred. The lines between New York and New Orleans are frequently connected together by means of transferrers, and direct communication is had over a distance of more than two thousand miles. Quite recently direct communication was had between Halifax, Nova Scotia, and Beloit, Wisconsin, a distance of over three thousand miles. The operators, situated at this enormous distance from each other, were able to converse as freely and rapidly as if they had been separated but a few rods. No perceptible retardation of the current takes place; on the contrary, the lines so connected work as successfully as when divided into shorter circuits.

This is not the case with subaqueous lines. The employment of submarine, as well as of subterranean conductors, occasions a small retardation in the velocity of the transmitted electricity. This retardation is not due to the length of the path which the electric current has to traverse, since it does not take place with a conductor equally long, insulated in the air. It arises, as FARADAY has demonstrated, from a static reaction, which is determined by the introduction of a current into a conductor well insulated, but surrounded outside its insulating coating by a conducting body, such as sea-water or moist ground, or even simply by the metallic envelop of iron wires place in communication with the ground. When this conductor is presented to one of the poles of a battery, the other pole of which communicates with the ground, it becomes charged with static electricity, like the coating of a Leyden jar—electricity which is capable of giving rise to a discharge current, even after the voltaic current has ceased to be transmitted.

ATMOSPHERIC TELEGRAPH.

The Electric Telegraph Company in London have an air-tight tube laid between their central station and other stations at Cornhill and the Stock Exchange, from which the air is exhausted by a pump, and documents sent through the tube by atmospheric pressure, upon the same principle as RICHARDSON'S telegraph. This system has been in operation, privately, in London, for several years, and it is now proposed to lay down a complete and extended series of public lines in London, on a scale which will receive not merely papers and packages, but parcels of considerable bulk, including the mail bags of the Post-office between the railroads and the district offices; and a company is now in course of formation to carry out the object.

JOURNAL OF MINING, MANUFACTURES, AND ART.

BRITISH FACTORY OPERATIVES.

A London correspondent of a New York paper writes as below, regarding the operatives in the factories of Great Britain. The reports of the inspectors of factories, which have just been issued, comprise three reports only: the district lately vacated by Mr. LEONARD HORNER having been annexed partly to Sir JOHN KINCAIRD's district, (Scotland,) and partly to Mr. REDGRAVE's district, now comprising 3,075 factories and print works; while Mr. ROBERT BAKER'S district, (Ireland and some parts of England,) remains within its old boundaries. The following is a general abstract, showing the total number of accidents reported to the three inspectors during the six months ending 30th April, 1860:—

ACCIDENTS ARISING FROM MACHINERY.

Nature of injury.	Adults.		Young persons.		Children.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Causing death	14	8	7	2	2	2	23	7	30
Amputat'n of right hand or arm	5	6	3	1	1	.	9	7	16
" of left hand or arm.	4	1	7	3	1	.	12	4	16
" of part of right hand	23	24	29	22	15	7	67	53	120
" of part of left hand	16	17	21	18	8	7	45	42	87
" of any part of leg or foot	5	..	1	..	..	..	6	..	6
Fracture of limbs and bones of trunk	30	11	43	11	11	4	84	26	110
Fracture of hand or foot	39	43	30	37	20	15	89	95	184
Injuries to head and face	20	17	23	29	11	4	54	40	94
Lac'tus, contusions, and other	268	255	315	352	128	66	711	673	1,384
Total	424	377	479	465	197	105	1,100	947	2,047

ACCIDENTS NOT ARISING FROM MACHINERY.

Total	83	30	59	26	21	10	168	66	229

In the infancy of the factory system, when manufacturers were in want of labor, it was obtained directly by application to the overseers of some distant parish, who forwarded a certain number of apprentices, children of tender age, who were bound to the manufacturers for a term of years. The children being once apprenticed, the poor-law officers congratulated their respective parishes on their deliverance from idle mouths, while the manufacturer proceeded to make the best of his bargain by keeping them at the most economical rate, by screwing from them all the labor of which they were capable. Hence the first of the series of factory acts passed in 1802, 42 Geo. III., cap. 73, has for its title, "An act for the preservation of the health and morals of apprentices and others employed in cotton and other mills, and cotton and other factories," and was merely intended to mitigate the evils of the apprenticeship system. But as improvements were made in machinery, a different kind of labor was wanted, when trade became brisk and the population of the neighborhood failed to supply the mills with their full complement of hands. These manufacturers sent to Ireland, and brought over Irish families; but Ireland has ceased to be the market from which a supply of labor can be procured on English demand, and manufacturers have now to look to the Southern and Western counties of England and Wales for

families which can be tempted by the present rate of wages in the Northern counties to commence a new career of industry. Agents have been sent throughout the country, to set forth the advantages offered to families by removing to the manufacturing districts, and they are empowered to make arrangements for the emigration to the North. Many families are said to have been forwarded by these agents. Still, the importation into a manufacturing town of a man with his wife and family has this peculiar advantage, that while the younger members of the family, who can soon be taught, and whose services become valuable in a comparatively short period, are most in request, there is no ready demand for the labor of the man and his wife, unskilled in factory labor. This has induced some manufacturers to return, in some measure, to the old apprenticeship system, and to enter into engagements for specific periods, with boards of guardians, for the labor of destitute pauper children. In these cases, the manufacturer lodges, clothes, and feeds the children, but pays them no regular wages. With the return of this system, complaints of its abuse seem also to have revived. However, this kind of labor, it should be remembered, would only be sought after when none other could be procured, for it is a high priced labor. The ordinary wages of a boy of 13 would be about 4 shillings per week; but to lodge, to clothe, to feed, and to provide medical attendance and proper superintendence for 50 or 100 of these boys, and to set aside some remuneration for them, could not be accomplished for 4 shillings a head per week.

A comparison of the rate of wages paid to factory operatives in 1839 and that paid in 1859 proves the highly interesting fact that the rate of wages has risen, at least nominally, in factories where the hours of work were restricted to 60 per week, while, with a few exceptions, a real reduction has been suffered in the printing, bleaching, and dying works in which the labor of children, young persons, and women is unrestricted, and where they are at times employed fourteen and fifteen hours per day. The following statements have reference to the cotton trade in Manchester and its neighborhood :—

WEEKLY WAGES.

	1839.	1859.
Hours of work per week	69	60
OCCUPATIONS.		
Steam engine tender.....shilllings	24	30
Warehouse boys	7	8
" men	18	22
Carding department—		
Scutchers, (young women and girls)	7	8
Skippers, (young men)	11	14
Overlookers	25	28
Card minders, (boys from 14 to 18)	6	7
Drawing-frame tenders, (young women)	6 6d.	8
Spinning department—		
Spinners on self-acting mules	16 to 18	20 to 22
Piecers (women and young men)	8	10
Overlookers	20	20
Doubling department—		
Doublers (women)	7	9
Doffers (girls)	4	5
Overlookers	24	28
Jobbers, (young men)	10	18

In the reeling, gassing, and power loom departments there has also been a slight increase of wages. The anticipations of those who warned the factory

operatives that they would seriously suffer by the diminution of their hours of work, have thus been completely disappointed. Compare, on the other hand, the movement of wages in those branches where the hours of daily labor are legally unrestricted.

CALICO-PRINTING, DYEING, BLEACHING, SIXTY HOURS PER WEEK.

	Weekly wages. 1839.	1859.		Weekly wages. 1839.	1859.
Color-mixers.....	35	32	Block-printer.....	40	28
Machine-printer.....	40	38	Dyer.....	18	16
Foreman.....	40	40	Washer and laborer...	16 & 15	16 & 15
Block-cutter.....	35	25			

FUSTIAN DYEING, SIXTY-ONE HOURS PER WEEK.

Dressers.....	18	22	Dyers,.....	21	16
Bleachers.....	21	18	Finishers.....	21	22

By far the most interesting portion of the reports of Mr. ALEXANDER REDGRAVE and Sir JOHN KINCAID relates to the development and extension of co-operative societies for the erection and working of mills in Lancashire, and also to some degree in Yorkshire. These co-operative societies, which have multiplied since the passing of the Limited Liability Act, are generally composed of operatives. Each society has a capital of £10,000 and upward, divided into shares of £5 and £10, with power to borrow in certain proportions to the capital subscribed, the money borrowed being made up of small loans by operatives and persons of the like class. In Bury, for instance, upward of £300,000 will be required to put the co-operative mills there built and building into working order. In cotton spinning mills the spinners and persons employed are frequently shareholders in the same mill, working for wages and receiving interest upon their shares. In cotton weaving sheds, the partners frequently hire and work looms. This is attractive to operatives, because no great capital is required to start them in their undertaking. They purchase the yarn ready for the loom, weave the cloth, and the factory operation is completed; or else they receive the yarn from some manufacturer who trades with them, and return to him the woven fabric. But this co-operative system is not confined to the spinning and weaving of cotton. It has extended to the trade on a variety of articles of consumption, such as flour, groceries, draperies, etc.

The co-operative company at Rochdale paid a dividend of 44 per cent on their paid up capital, for the half year ending in October, 1859; and another dividend of 48 per cent has been declared since that time; the capital now being £60,000.

MANUFACTURE OF SEMI-STEEL.

The method of making semi-steel, at the Albany Iron Works, is as follows:— The furnace employed is substantially the ordinary boiling furnace, that is, a puddling furnace adapted to a higher degree of heat than is used in the ordinary process. The pig iron, broken into small pieces, is placed on a trough-shaped hearth, removed from the solid fuel. The flame, as usual, passes over a bridge wall, and is deflected upon the iron. For a charge of 336 lbs. of pigs, about two barrow loads of cinders and scales, from the forge (oxyde of iron) and other fluxes, are added to the cinder, previously melted on the hearth, the whole form-

ing a bath in which the iron is heated under a constantly increasing temperature. The cinder and fluxes boil from the escape of the gases caused by the oxydation of the carbon in the iron, and of the iron itself. To prevent the too rapid decarbonization of the iron, a much larger quantity of cinder is charged than in case of making iron, and a much higher temperature is employed—the highest that can be obtained. The metal "comes to nature," or parts with its carbon, sooner if the heat is kept comparatively low.

The cinder bath is composed largely of the slag from the boiling furnaces which are employed in making iron, and in which more cinder and a higher heat are employed than in the common puddling furnaces. A solvent of manganese and its earthy bases, prepared in a manner which is not made public, for obvious reasons, is charged with the iron, and forms a part of the bath, all of which, under the high heat, melts as thin as water, and covers the molten mass of iron. The presence of the manganese is found to produce great uniformity in the product, and to prevent, in a considerable degree, the blistering of boiler plate rolled from the blooms thus obtained.

As in the ordinary puddling process, the operator breaks up the lumps of iron, turns them over, to expose all parts to the heat, and, when they become pasty, works them into puddle balls. When 336 lbs. of iron are charged, five heats per day are made; with a charge of 280 lbs., six heats per day are made, in each furnace. The puddle balls are removed from the furnace from 18 to 20 minutes sooner than in case of making iron from the same charge; the time of stopping the process being decided by the operator, from the appearance and consistency of the mass, and with reference to the quantity of iron used.

A longer time is required to work the pig metal into steel than into iron. The same time is required to convert 336 lbs. of pig iron into steel as would be necessary to work 448 lbs. into wrought iron in a boiling furnace. A higher heat being employed, more coal is consumed, a ton of steel requiring 30 cwt., and a ton of iron requiring but 16 cwt.

The puddle balls are hammered, two together, into a slab, under a three-ton hammer; the slab is heated and hammered twice at a welding heat; at a fourth heat it is rolled into plate.

The long-celebrated Salisbury iron is exclusively used at this establishment for steel-making, and its peculiar qualities promise a higher success for the product than is likely to be obtained from almost any other variety of raw material. The Salisbury is a neutral iron, being neither red short nor cold short, from the presence of either phosphorous or sulphur; it is naturally extremely tough, and stands a tensile strain equal at least to that borne by the best irons in the market.

The Albany Works' steel, thus far, proves more uniform than any of the puddled steels that have been imported. Its chief defect, in the shape of plates, is a tendency to blister in the rolls. A remedy for this, however, appears to be perfecting. All plates are tested by hammering their entire surface. A quarter to a third of them are found to have small blisters; all of those sent out, however, have proved perfectly sound. A larger proportion of imported plates are found to blister. All puddled steel, which is free from blisters, is more homogeneous and uniform than iron.

THINGS WE SEND ABROAD.

We have sent vast quantities of agricultural implements to all parts of Europe, and some to Asia and Africa. A good many of our importations have been taken to Palestine, but it has been found next to impossible to get the Arab population to use them. In some other countries, where the laborers are almost equally barbarous, they have shown much more affection for things that lessen labor—that of drawing water from wells in particular. In a late conversation with J. D. WEST, the inventor of a most effective iron pump, he told us that his firm had frequent orders for pumps to be sent to Russia, Germany, Turkey, Egypt, and now a party is asking for its exclusive sale in Hungary. It is popular in all northern regions, on account of its anti-freezing properties. It is also in use in the city of London, and it is sent abroad, as well as used at home, with the Ericsson hot-air engines, which begin to be ordered for several foreign countries.

The pump above spoken of is manufactured by J. D. WEST & Co., 179 Broadway, N. Y., and for its simplicity, durability, and ease of action is a truly valuable invention, and we think we may be doing our readers a service by speaking of it, especially as our recommendation is sustained by the best engineers and judges of hydraulic machinery in the country, many of whom speak of it after practical trial. It is adapted for every place where liquids are to be raised, from common wells and cisterns to mines and manufactories, and it is quite economical both in price and in the power required to drive it. It has taken the first premium at the United States agricultural fair at Richmond, and at numerous State fairs.

ORIGIN OF IRON BRIDGES.

It is a curious circumstance that the most successful contriver of an iron bridge, and that of the very boldest design, was no other than the celebrated THOMAS PAINE. He was an exciseman, and drew up a petition for an increase of pay. He studied mathematics and mechanics, and became acquainted with GOLDSMITH and FRANKLIN; the latter persuaded him to go to America. He settled down at Philadelphia to mechanical and philosophical studies, and speculations on electricity, minerals, and the uses of iron. In 1787, when a bridge over the Schuylkill was proposed to be constructed without any piers, as the stream was apt to be choked with ice in the spring freshets, PAINE boldly offered to build an iron bridge with a single arch of 400 feet span. The same year we find him at Paris, submitting the plan of his bridge to the Academy of Sciences, whose opinion was decidedly favorable. He sent a copy to Sir JOSEPH BANKS, to be submitted to the Royal Society; and he next proceeded to Rotherham Iron Works in Yorkshire, to have his bridge cast. It was a segment of an arch of 410 feet span, and constructed of framed iron panels, radiating towards the center in the form of voussoirs. An American named WHITESIDE advanced him money on the security of his property in the States; he was unable to complete the castings of the bridge, which were then shipped off to London, and erected on a bowling green at Paddington. There it was visited by a large number of persons, and regarded as a great success.

WHITESIDE having become bankrupt, PAINE was arrested by his assignees,

but was liberated by the assistance of two other Americans, who became bail for him. When returned from France to America, he in 1803 presented a memoir to Congress on the construction of iron bridges, with several models. It does not appear that he succeeded in erecting his bridge. In the meantime, however, the bridge exhibited at Paddington produced results; the manufacturers agreed to take it back as part of their debt, and the materials were used in the noble structure over the river Wear, at Sunderland, where it was erected in 1794. This bridge was long regarded as the greatest triumph of art. Its span exceeded that of any existing stone arch, being 236 feet, with a rise of 34 feet, the springing commencing 95 feet above the bed of the river, allowing vessels of 300 tons burden to sail underneath without striking their masts. "If," says Mr. STEPHENSON, "we are to consider PAINE as its author, his daring in engineering certainly does full justice to the fervor of his political career; for, successful as the result has undoubtedly proved, want of experience and consequent ignorance of the risk, could alone have induced so bold an experiment; and we are rather led to wonder at than to admire a structure which, as regards its proportions, and the small quantity of material employed in its construction, will probably remain unrivaled."

MANUFACTURING IN OHIO.

Prior to 1850, Ohio had about 4,000,000 of sheep, yielding about 10,000,000 pounds of wool; nearly all this wool was sold in Manhatta, New York, Lawrence and Lowell, Massachusetts, and other manufacturing towns. It might have been manufactured in Ohio, and would have been except for the want of capital. The immense capital accumulated in Boston and New York was applied to the manufacture of woolen and cotton goods. For want of capital the West could not compete with these factories; but raised the wool and sent it to them.

Ohio is wholly an interior country, and hence can grow only with the cultivation of its lands, unless its capacities for manufacturing be brought out. This will be done, and done on an immense scale, whenever the coal and iron region is developed. This has been done to a moderate extent. We take from the report of the Commissioner of Statistics, the following digest of the production of coal and iron in Ohio, for the year 1857 :—

DEVELOPMENT OF COAL.

Counties.	Quantity mined.	Counties.	Quantity mined.
Athens.....bushels	2,000,000	Perry.....	1,000,000
Carroll.....	100,000	Stark.....	2,000,000
Columbiana.....	1,365,000	Summit.....	6,000,000
Belmont.....	3,500,000	Trumbull.....	4,300,000
Guerney.....	1,200,000	Tuscarawas.....	1,795,000
Jefferson,.....	5,000,000	Vinton	300,000
Lawrence.....	2,500,000	Washington	200,000
Mahoning.....	3,340.000		
Meigs.....	8,000,000	Aggregate.....	44,600,000
Muskingum.....	2,000,000		

The development of coal, especially in the counties of Meigs, Vinton, and Lawrence, has no doubt been increased since 1857; but is still far short of what it ought to be and might be, under a prosperous state of manufactures.

DEVELOPMENT OF IRON.

Counties.	Furnaces.	Tons of ore.	Counties.	Furnaces.	Tons of ore.
Gallia	1	6,000	Stark	2	.....
Hocking	3	18,000	Tuscarawas	1	12,516
Jackson	12	60,000	Vinton	5	21,000
Lake	1	.....	Trumbull	.	15,000
Lawrence	14	77,000		—	———
Mahoning	6	45,000	Aggregate	54	299,516
Scioto	9	45,000			

The pig metal produced from this ore amounted to 105,500 tons.

It will be seen that the iron region round Portsmouth, on the Ohio side, has 44 furnaces, and makes 86,000 tons of pig metal. This, however, is only a part of that iron belt. There are about 20 furnaces on the Kentucky side—making about 64 furnaces in all, and producing about 110,000 tons of metal. The results of this production are centered chiefly in Cincinnati, where iron is manufactured extensively.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

FREIGHTS FROM THE WEST.

The roads centering at Chicago met in convention September 1st, and agreed upon the following new tariff of through rates from Chicago, to take effect from Monday, September 3d:—

Chicago and Joliet to—	1st class.	2d class.	3d class.	4th class.	Flour in lots 50 brls. & over.
Detroit, Mich.—Rail	50	40	30	20	40
Suspension Bridge, N. Y.—Rail	75	60	40	30	55
Buffalo, N. Y.—Rail	75	60	40	30	40
Buffalo, N. Y.—Lake	60	50	30	25	45
Toronto, C. W.—Rail	75	60	40	30	55
Montreal, C. E.—Rail	1 20	1 00	65	50	1 00
Prescott—Rail	1 45	1 10	80	58	1 10
Albany & Troy, N. Y.—Rail	1 45	1 14	84	55	1 05
Albany—Lake	1 30	1 04	74	50	95
Schenectady—Rail	1 45	1 14	84	55	1 05
Schenectady—Lake	1 30	1 04	74	50	95
New York—Rail	1 45	1 15	78	58	1 15
New York—Lake	1 30	1 03	70	52	1 05
Boston via Albany—Rail	1 55	1 23	83	65	1 30
Boston via Albany—Lake	1 40	1 03	75	60	1 20
Boston via G. Trunk Rail	1 55	1 23	83	55	1 10
Portland via Trunk Rail	1 55	1 23	83	55	1 10
Danville Junction—Rail	1 55	1 23	83	55	1 10
New Haven, Ct.—Rail	1 55	1 23	83	65	1 30
Worcester, Mass.—Rail	1 55	1 23	83	65	1 30
Worcester, Mass.—Lake	1 40	1 08	75	60	1 20
Providence, R. I.—Rail	1 55	1 23	83	65	1 30
Providence, R. I.—Lake	1 40	1 08	75	60	1 20

RATES FROM LOUISVILLE AND NASHVILLE TO SOUTHERN CITIES BY RAIL.

The Superintendent of the Chattanooga Railroad announced September 1st,

the following tariff of rates on freight from Louisville and Nashville to southern points by all rail:—

	Freight from Louisville to—					
	Atlanta, Ga.	Augusta, Ga.	Macon, Ga.	Columbus, Ga.	Montg'y, Ala.	Char'n & Savannah.
Whisky, per barrel	2 50	3 25	3 10	3 50	3 50	4 00
Pork and beef	2 10	2 75	2 60	2 85	8 90	3 35
Flour, per barrel	98	1 23	1 18	1 33	1 38	1 48
Wheat, per bush	30¼	30¼	36¼	42¼	44¼	46¼
Corn, rye, barley, ship stuff, and corn meal, per bushel	24	31	30	35	36	38
Oats, per bushel	16	21	20	23	24	26

	Freight from Nashville to—					
	Atlanta, Ga.	Augusta, Ga.	Macon, Ga.	Columbus, Ga.	Montg'y, Ala.	Char'n & Savannah.
Whisky, per barrel	1 50	2 25	2 10	2 50	2 50	3 00
Pork and beef, per barrel	1 25	1 88	1 75	2 00	2 00	2 50
Flour, per barrel	50	75	70	85	90	1 00
Wheat, per bushel	18	26	24	30	32	34
Corn, rye, barley, ship stuff, and corn meal, per bushel	14	21	20	25	26	28
Oats, per bushel	9	14	13	16	17	19

RAILWAYS OF EAST INDIA.

In the *Merchants' Magazine* for August, page 251, was given the statistics of the existing railways in India. The London *Engineer* remarks upon these railroads and their effects as follows:—

The construction of railways in India has awakened a spirit of enterprise; had caused the country to be examined for its more valuable products, of which iron and coal had been found; had induced designs for docks, and for the improvement of navigation and of irrigation; had given employment, on an average, to 100,000 laborers; had led to an expenditure of £14,000,000, within a few years, chiefly among the native population; and had involved the delivery into the country of 700,000 tons of material, irrespective of contractors' plant, &c. costing about $10,500,000. That they would ultimately lead to the development of the rich resources, and to the civilization of the immense native population of India, could not now be doubted.

The number of men employed on the opened portions of the Indian railways, in 1859, was 590 English and 7,855 natives, giving an average of sixteen men per mile. At this rate the lines now being constructed would give permanent employment to 77,000 persons. The fares in the Bombay Presidency in 1859 were—first class, 2½d.; second class, ¼d.; and third class, ¾d. per mile. The speed of the trains, including stoppages, was from sixteen to twenty miles per hour. The total number of passengers carried was 1,161,501, and the number conveyed over one mile, per mile of railway open, was 192,974; the average distance traveled by each person being 32.4 miles. The total number of passengers, on all the lines, in 1859, was 2,822,382, of which nearly 93 per cent were third class. The average receipts in the Bombay Presidency, for the year ending June, 1859, had been, for passengers, £453, and for goods, £464 per mile. It was evident that the goods traffic had not yet been fully developed, as the lines were not continuous, nor had they reached the principal producing districts. The cost of working to June, 1859, which had since been increased, was only 44.1 per cent of the gross receipts, notwithstanding that the cost of fuel was three guineas per ton. The dividend on the expended capital was about 5.14 per cent. The East Indian had realized even a larger dividend.

In reply to the inquiry as to the reasons which had led to the execution of

the works on the Madras Railway by the engineers, without the intervention of contractors, it was stated, that when the line was commenced there were no large contractors available in that presidency, and it was thought better to proceed at once rather than to enter into correspondence with the administrative body in England, which must have resulted in considerable delay. It had already been proved, by experience in Bengal, that the natives could be readily organized on railway work; and as the large English contractors had no more information than the engineers as to the labor question, the purchase of materials, and other arrangements, there was no room for hesitation in returning to the primitive system, so successfully pursued in the cases of the Eddystone lighthouse, and the Stockton and Darlington and Liverpool and Manchester railways. Besides, in India scarcely any plant was required. The works were begun at Madras without any appliances from this country. The natives found their own tools, and baskets for carrying the earth. Temporary rails were not needed, as there were no long "leads," from cuttings into embankments. The earthwork for the first six miles from Madras was let to a native contractor for rather less than one penny per cubic yard. The other parts of the line were let on a similar principle, in small sections, the sub-contractors being paid weekly. No difficulty whatever was experienced in carrying out this system, within a reasonable distance of Madras.

With regard to the style adopted in the construction of Indian railways, it was sometimes argued that the substantial had been selected in opposition to what was, incorrectly, called the American system. This was denied, for it had been the practice to take advantage of the cheapest and best materials to be found upon the spot; and where there was abundance of good stone, and timber was dear, it was more economical to use stone and bricks than timber.

It was but fair to mention that the rate of wages and the price of work were much higher in the Bombay Presidency than in the Madras. In the latter, labor averaged per day, coolies. 3d.; women or boys, to assist in carrying earth, 1½d.; carpenters, from 9d. to 10½d.; and bricklayers, from 7½d. to 10½d. These rates were about the same as were now being paid upon the Great Southern of India. The ordinary price of earthwork was 1½d. to 2d., and of masonry 7s. 6d. to 10s. per cubic yard. The making of embankments, building of bridges, laying of the permanent-way, and ballasting the road, cost about £1,500 per mile, exclusive of materials and of stations.

It was observed that the Calcutta and Southeastern was so small as hardly to be worth naming in an engineering point of view. It possessed, however, some interest commercially; the object being to open out a new port for the enormous and rapidly increasing trade of Bengal. The line extended from Calcutta to the Mutla, a distance of 28¼ miles. The dangers of the Hooghly were well known. Its crowded state, and the expense and difficulty of its navigation, all rendered it necessary to seek another outlet. This was fortunately found in the Mutla, which was, to a great extent, free from the dangers of the Hooghly. The Mutla had a depth of not less than 24 feet at low water spring tides, from the proposed new port to the sea. It was subject to no bars, nor dangerous tidal currents. The stream of tide did not exceed, at any time, four miles per hour. It had no freshets, no shifting sands, and no bar. It was interesting, in an engineering point of view, to compare the Hooghly with the Mutla; the former with a vast body of fresh water always passing down it, incumbered with shoals and shifting channels; the other, without fresh water, a clear, deep, and permanent channel, kept open by the tidal scour alone. The system of executing the works without the intervention of contractors had been adopted, because the works were of that nature that no advantage could be derived from the large contract system. In this case no plant was required, and the native labor could be directed quite as well by the company's engineers as by those of a large contractor.

It was contended that, in a distant country like India, where the engineer himself had no precise knowledge of what would be the cost of railway works, it was impossible to induce a fair competition among contractors; who would

be tempted, in making an offer, to add a considerable sum, to provide against contingencies which might arise. In the construction of Indian railways the best materials only should be employed, put together in the most substantial manner; for the population was very great, the traffic was likely to be heavy, and there was every prospect of a fair return for the outlay.

In closing the discussion, it was remarked that the paper was one of the most interesting and instructive that had ever been read at the institution. It was a subject for congratulation that the results of the non-contract system had been so satisfactory in India; for, although great supervision had been exercised by the government over the expenditure, there was nothing like personal interest to insure economy. Contractors might be said to be both bold and timid—bold where the thing to be done was fairly understood; but timid where there were contingencies in the background. In introducing a new class of labor into a new country, the engineer should pioneer the way, so as to ascertain the character of the elements on which contractors might subsequently found estimates. When that had been done, fair competition might be relied on, and then the contract system might be introduced with advantage.

Inferences of a useful character might be drawn from the comparison which had been made as to fares, and the average distance traveled by each passenger. The third-class fares in India seemed to be about one-half what they were in England, whilst the distance traveled by each passenger was respectively thirty-two and twelve miles. If the distance each passenger was conveyed in England could be increased, no doubt either higher dividends would be realized, or lower fares could be charged. The intricate complications of railway companies had arisen from the contests for long fares. But it was believed that the real prosperity of a railway company was dependent more upon its own traffic; and that, in general, facilities should be afforded for the construction of lines in the districts traversed, so as to lead ultimately to an increase in the accommodation of the immediate population, and for the general conveyance of traffic.

THE RAILROADS OF NEW YORK.

Too much importance, says the New York *Courier and Enquirer*, cannot be attached to the railroads and canals of our State. They have contributed more than all other sources combined to the growth of the city and the State. They have promoted the great interests of agriculture and manufactures throughout nearly the whole of the forty-seven thousand square miles within our limits. They will go on further, and in an equal ratio probably, in advancing the business and wealth of the State.

In five years the total freights on the two leading roads, and the tolls on the canals have amounted to nearly $50,000,000—and the number of tons carried 27,000,000, viz:—

1855–1859.	Freights.	Tons carried.
New York Central Railroad	$19,114,338	3,884,702
New York and Erie	19,335,575	4,419,365
Canals (tolls)	11,433,629	18,929,639
Total for five years	$49,883,542	27,233,703

CAPITAL, DEBT, COST OF ROAD, FOR THE YEAR 1859, ENDING SEPTEMBER 1ST.

Name of road.	Capital.	Total debt.	Cost of road.	Receipts, 1859.
New York Central Railroad.	$24,000,000	$14,333,771	$30,840,713	$6,200,848
New York and Erie " .	11,000,000	25,613,703	35,390,907	4,482,149
Hudson River " .	3,758,466	9,256,654	11,388,279	1,842,686
New York and Harlem " .	5,717,100	5,353,297	8,019,671	1,076,322
Total, four roads	$44,475,566	$54,557,425	$85,569,570	$13,601,955

Name of road.	Capital.	Total debt.	Cost of road.	Rec'pts, '59.
Broadway, (Brooklyn).....	199,000	14,556	213,069	29,804
Brooklyn City.....	1,000,000	.....	1,054,107	471,442
Eighth Avenue, N. Y. City..	800,000	.....	769,550	379,499
Ninth "	795,360	.....	352,694	8,522
Second "	650,000	368,000	992,366	262,166
Sixth "	750,000	.....	877,336	323,956
Third "	1,170,000	135,600	1,564,698	502,951
Total city railroads.....	$5,364,360	$518,156	$5,824,220	$1,978,340
All other railroads.....	64,826,434	72,559,202	123,608,813	18,863,034
Total State of N. Y...	$70,189,794	$73,077,358	$129,433,033	$20,841,374

RECEIPTS.

	1858.	1857.	Price of shares August 6.
New York Central Railroad.....	$6,528,412	$8,027,251	86 a 86¼
New York and Erie "	5,151,616	5,742,606	27 a 27¼
Hudson River "	1,636,412	1,839,416	57¼ a 57½
New York and Harlem "	975,853	1,027,572	18⅝ a 18¾
Total, four roads.....	$14,292,293	$16,636,845	
Broadway, (Brooklyn).....	.....	.....	... ...
Brooklyn City.....	395,026	388,610	115 a 118
Eighth Avenue, N. Y. City.....	338,410	341,471	140 a 150
Ninth "	.....	.....	... ...
Second "	227,457	.....	98 a 100
Sixth "	280,617	.....	130 a 140
Third "	403,055	419,029	180 a 190
Total city railroads.....	$1,445,565	$1,411,158	
All other railroads.....	18,621,787	20,689,795	
Total State of New York.....	$20,266,352	$22,100,953	

MEMPHIS AND CHARLESTON RAILROAD.

RECEIPTS FOR THE YEAR ENDING JUNE 30, 1860.

Passengers.....	$975,259 33	Rents and tolls.....	4,220 70
Freight.....	582,573 26		
Mail.....	55,175 00	Total receipts.....	$1,605,096 67
Express.....	17,488 38	Total expenditures....	761,500 00
Privileges	430 00		
		Net earnings.....	$873,596 67

For these figures we are indebted to an official source; and comparing them with the company's annual report for the year ending June 30, 1859, we find that for said year the gross receipts were $1,330,812 40, and the net receipts $783,037. These amounts, deducted from the gross and net earnings for the year ending June 30, 1860, exhibit in the gross receipts an increase of $304,284, and in the net receipts an increase of $95,560 67.

The Memphis and Charleston Railroad is an astonishing financial success; and we use this strong adjective not because there is anything surprising in the fact that the road *is* a success—for that result was always expected of it—but because the *measure* of its success is beyond the hopes of the most sanguine of its confident projectors, and is almost beyond example among iron lines.

The Memphis and Charleston Railroad Company at date, July 1, 1859, owned 287 miles of first-class road, with complete appurtenances and equipments, represented by a funded debt of $2,700,000, and a stock capital of $3,580,264, making a total of capital and funded debt of $6,280,264.

The floating debt is small; the interest on the funded and floating debt together, for the year, not exceeding $200,000, and which, deducted from the net receipts for the year, leaves a balance of $673,596 67, from which to make appropriations to sinking fund, and renewal fund, and also to pay *in cash* a dividend so large as to seem fabulous.

The Memphis and Charleston Railroad Company *command* congratulations upon their most triumphant success, for no railroad man can ponder their figures without emotions of the heartiest and highest satisfaction.

WEAR OF RAILS.

In *Herapath's Railway Journal*, (English,) it is stated that, "at a late meeting of the West Flanders Railway, the editor having mentioned, on the experience of one of our ablest practical railway men, that the rails, unless at the stations and places where there is skidding, do not sensibly wear out, was afterwards spoken to by a gentleman and a railway chairman, who seemed to misunderstand what Mr. HERAPATH said, and adduced the splitting and exfoliation of some of the rails in disproof of what they called a theory. Lest others should run away with the same mistaken notions and misapprehensions, we think it necessary to say that the non-wearing-out applies to rails made of good iron, not inferior iron tinned over, as it were, with good, of which far too many rails are made, and to rails on the middle of a line over which the trains run in the ordinary way. Experiments have been made by taking up and carefully weighing rails in this position after twelve months' wear or more, which were found not sensibly to have lost any weight during that time, thereby proving that there could have been no sensible wear. Besides, we have been assured that, after being down for many years, they showed no signs of material wear, which justified the statement which Mr. HERAPATH made on the authority given him. It is true that, near stations and places of 'shunting,' where there is much sliding and slipping by the application of the breaks or otherwise, there is a very sensible wear, but this is caused by slipping friction, not rolling, which is incomparably less than the former, though it seems we have ex-railway chairmen quite innocent of the knowledge of that simple fact." Rails made of the best iron cost more at first, but they endure three times longer than rails made of an inferior quality of metal, and the former are therefore the cheapest in the end.

LOCOMOTIVES IN FRANCE.

The number of locomotives which can be built yearly by the French builders is officially reported as follows:—CAIL, of Paris, 100; E. GOUIN, of Paris, 73; ANDRE KOECHLIN & Co., of Mulhouse, 100; works at La Creuzot, 80; BUDDICOM, of Rouen, 40; Cave, 50; CLEMENT DESORMES, 40; and the workshops of the Orleans Railway Company, 34; making 516 yearly. Besides the Orleans, other railway companies produce from 30 to 40 more engines yearly.

STATISTICS OF AGRICULTURE, &c.

COTTON CROP OF THE UNITED STATES.

STATEMENT AND TOTAL AMOUNT FOR THE YEAR ENDING 31ST AUGUST, 1860. FROM THE NEW YORK SHIPPING LIST.

NEW ORLEANS.			1860.	1859.	1858.
Export from New Orleans—					
To foreign ports.....bales	2,005,662				
To coastwise ports.....	208,634				
Burnt at New Orleans.....	5,240				
Stock, 1st Sept., 1860.....	73,934				
		2,293,470			
Deduct received from Mobile..	34,179				
Received from Montgomery, etc.	28,473				
Received from Florida.....	16,335				
Received from Texas.....	49,086				
Stock, 1st Sept., 1859.....	26,022				
		154,045			
			2,139,425	1,669,274	1,576,409
ALABAMA.					
Export from Mobile—					
To foreign ports.....	659,481				
To coastwise ports.....	158,332				
Burnt at Mobile	3,387				
Manufactured in Mobile.....	1,220				
Stock, 1st Sept., 1860.	41,682				
		864,102			
Deduct received from N. Orleans	984				
Stock, 1st Sept., 1859	20,106				
		21,090			
			843,012	704,406	522,364
TEXAS.					
Export from Galveston, &c.—					
To foreign ports, including 1,865 to Mexico).....	111,967				
To coastwise ports.....	139,767				
Manufactured in Galveston....	177				
Stock, 1st Sept., 1860.....	3,168				
		255,079			
Deduct stock, 1st Sept., 1859.....		2,655			
			252,424	192,062	145,286
FLORIDA.					
Export from Apalachicola, St. Marks, &c.—					
To foreign ports, Uplands.....	58,358				
Sea Islands.....	755				
To coastwise ports, Uplands...	117,394				
Sea Islands.....	18,200				
Burnt at Apalachicola..... ...	1,394				
Stock, 1st Sept., 1860.....	864				
		192,960			
Deduct stock, 1st Sept., 1859....		236			
			192,724	173,484	122,351
GEORGIA.					
Export from Savannah—					
To foreign ports, Uplands.....	331,159				
Sea Islands.....	6,596				
To coastwise ports, Uplands...	190,937				
Sea Islands.....	18,345				
Stock in Savannah, 1st Sept., '60	4,307				
Stock in Augusta, 1st Sept., '60	5,252				
		556,596			

Deduct received from Florida,					
Sea Islands.....	6,308				
Uplands.....	686				
Stock in Savannah, 1st Sept., '59	9,320				
Stock in Augusta, 1st Sept., '59	9,063				
		25,377			
SOUTH CAROLINA.			531,219	475,788	282,973
Export from Charleston—					
To foreign ports, Uplands.....	365,654				
Sea Islands.....	21,116				
To coastwise ports, Uplands...	153,893				
Sea Islands.....	5,946				
Burnt at Charleston.....	284				
Stock in Charleston, 1st Sept. '60	8,897				
Export from Georgetown, S. C.—					
To Northern ports, Uplands....	801				
		556,091			
Deduct received from Florida,					
Sea Islands.....	6,844				
Uplands.....	539				
Rec'd from Savannah, Sea Isl'ds	1,411				
Uplands.....	19,596				
Stock in Charleston, 1st Sept. '59	17,592				
		45,982			
NORTH CAROLINA.			510,109	480,053	406,251
Export to coastwise ports.....	41,194				
			41,194	37,482	23,999
VIRGINIA.					
Export to foreign ports.....	3,259				
To coastwise ports.....	33,462				
Manuf. (taken from the ports)..	17,841				
Stock, 1st Sept., 1860.....	2,800				
		57,362			
Deduct stock, 1st Sept., 1859.....		375			
			56,987	33,011	24,705
TENNESSEE, ETC.					
Shipments from Memphis.....	391,918				
" " Nashville	23,000				
" " Columbus and Hickman, Ky.....	4,500				
Burnt and manuf. at Memphis..	1,482				
Stock at Memphis, 1st Sept., '60	1,709				
		422,609			
Deduct shipments to N. Orleans	263,589				
" " Norfolk ..	160				
Manufactured on the Ohio, &c..	49,000				
Stock, 1st Sept., 1859	1,184				
		313,933			
			108,676	85,321	9,624
Total crop of the United States.....			4,675,770	3,851,481	3,113,962

Increase over crop of 1859	824,289	Increase over crop of 1857	1,736,251
Increase over crop of 1858	1,561,808	Increase over crop of 1856	1,147,925

COMPARATIVE CROP STATEMENT.

	Bales.		Bales.		Bales.
1859–60...	4,675,770	1856–7.....	2,939,519	1853–4.....	2,930,027
1858–9....	3,851,481	1855–6.....	3,527,845	1852–3.....	3,262,682
1857–8....	3,143,962	1854–5.....	2,847,339	1851–2.....	3,015,029

EXPORT TO FOREIGN PORTS, FROM SEPTEMBER 1, 1859, TO AUGUST 31, 1850.

From	To Great Britain.	To France.	To North of Europe.	Other for. ports.	Total.
New Orleans.....bales	1,426,966	313,291	136,135	129,270	2,005,662
Mobile.....	445,663	148,918	21,806	43,094	659,481
Galveston.....	83,972	5,471	19,569	2,955	111,967
Florida	52,986	1,420	2,634	2,068	59,108
Savannah.....	291,403	20,422	24,809	1,121	337,755
Charleston.....	240,151	64,895	47,056	34,668	386,770
Virginia.....	3,259	.....	....	.....	3,259
New York.....	121,200	35,110	39,916	6,802	203,028
Baltimore.....	29	60	50	18	257
Philadelphia.....	289	.....	.....	3	292
Boston.....	3,514	.....	3,097	83	9,694
Grand total.....	2,669,432	589,578	295,072	220,082	3,774,173
Total last year.....	2,019,252	450,696	330,012	221,443	3,051,403
Increase.....	650,180	138,891	.....	.....	752,770
Decrease.....	.....	.....	34,940	1,361	.....

CROP OF SEA ISLAND COTTON.—The crop of this staple the past year (included in the general statement) was as follows:—Florida, 14,955 bales; Georgia, 18,657; and South Carolina, 18,801—total, 52,413, against 47,592 in 1858–9; 40,566 in 1857–8; 45,314 in 1856–7: 44,512 in 1855–6; 40,841 in 1854–5; and 39,686 in 1853–4.

CONSUMPTION.

Total crop of the United States, as before stated.....bales			4,675,770
Add stocks on hand at the commencement of the year, 1st Sept., 1859, in the Southern ports.....		85,369	
In the Northern ports.....		63,868	
			149,237
Makes a supply of.....			4,825,007
Deduct therefrom the export to foreign ports	3,774,178		
Less, foreign included.....	917		
		3,773,256	
Stocks on hand, 1st Sept., 1860, in the Southern ports.....	142,613		
In the Northern ports.....	85,095		
		227,708	
Burnt at N. O., Apalach., Charleston, and N. Y.	7,415		
Burnt and manufactured at Mobile, Galveston, and Memphis.....	6,266		
Manufactured in Virginia.....	17,841		
		31,522	
			4,032,468
Taken for home use north of Virginia.....bales			792,521
Taken for home use in Virginia, and south and west of Virginia.....			185,522
Total consumed in the U. S. (including burnt at the ports,) 1859–60.			978,043

	North of Virginia.	Elsewhere.	Total.		North of Virginia.	Elsewhere.	Total.
1858–9.bales	760,218	167,433	927,651	1852–3.bales	650,393	153,332	803,725
1857–8.....	452,185	143,377	595,562	1851–2.....	588,322	111,281	699,603
1856–7.....	665,718	154,218	819,936	1850–1.....	386,429	99,185	485,614
1855–6.....	633,027	137,712	770,739	1849–50.....	476,486	137,012	613,498
1854–5.....	571,117	135,295	706,412	1848–9.....	504,143	138,342	642,485
1853–4.....	592,284	144,952	737,236	1847–8.....	523,892	92,152	616,044

WHEAT: ITS HISTORY AND ITS CULTURE.

The following account of one of the most useful crops of this country, and particularly of the great industrial West, is well worth preserving in the pages of a work like the *Merchants' Magazine*, dedicated, as it is, to commerce in all its relations to Agriculture and that other germain sister Manufacture. We therefore copy from the *Prairie Farmer* a brief history of its past and present culture:—

There are five kinds of grain upon which mankind principally subsist—wheat, rye, Indian corn, rice, and oats. Wheat grows in a great variety of climates. The isothermal curve of 57° 2′ appears to be its utmost boundary in North America, though in Europe it grows at Drontheim in Norway, in 65° north, a mean temperature of 40° in summer. It is not grown nearer the equator than within 20°.

In 1622, wheat was introduced and sown on the Elizabeth Island, Massachusetts. In 1611, it was sown in Virginia, and in 1648 hundreds of acres of it were grown in that colony, though soon afterwards tobacco claimed precedence, and wheat became neglected. It was in 1718 that it was first grown in the Mississippi Valley, but it did not succeed well, owing to the peculiar character of the soil, growing too much to straw, and producing but little grain; however, in 1746, in consequence of a better culture perhaps, it was exported from the Wabash Valley to New Orleans.

During the last fifteen years the gain in the production of this crop in the United States has been over sixteen million bushels, while at the same time it has decreased in New England over one million bushels. It is estimated that one bushel of seed is used to every ten produced, and that three bushels are used annually by every individual of the population.

There are eleven species or sub-species named by botanists, but it is more than probable that some of them are mere varieties. In this country two only—winter and spring wheats—are generally grown. The grain of spring wheat is not usually as large as that of winter wheat, but it contains more gluten, and is preferred by many, who think it makes a more palatable bread. It is unpopular except where it is impracticable to grow the winter species. Sir JOHN SINCLAIR tells a story, the correctness of which we doubt somewhat, as we do some other things which he has written, that the Scotch farmers were in the habit of sowing fall wheat in March, and that it ripened as well as fall-sown wheat. The experiment has not yet been tried in this country, to our knowledge, but we should not expect much from the trial. Spring wheat should be sown as early as possible, the soil may be lighter than that necessary for winter wheat, but to insure a good crop it must be in good condition as to fertility. Rolling the land after sowing, especially if the soil is light, is highly important. From one-and-a-half to two bushels is the quantity of seed per acre. Grass seeds generally do well with spring wheat, and they should seldom be omitted.

The varieties of wheat are very numerous, differing in appearance, in constituent qualities, in adaptation to soil and climate, in their power to resist disease and insects, and in productiveness.

Under our present system of culture here, is one fact of general application regarding wheat, which is, that a given variety, though it succeeds better than any other when first introduced, by-and-by begins gradually to deteriorate in the qualities which at first recommended it. We are not prepared to say that this is owing to bad management or improper culture altogether—we should not like to make this accusation against our best farmers. They will agree with us, however, as to the fact alluded to. That we sow a great deal of imperfect seed, which in turn produces imperfect grain, or grain lacking a strong vitality and vigor, and which in its turn again produces weak and feeble plants, bearing a diminished product, no observant farmer doubts. Yet, is this cause alone sufficient to account for the deterioration spoken of? We are not able to determine this question.

Gen. HARMON, of New York, one of the best, most extensive, and observant wheat growers in the country, gave the following as the best varieties of wheat in the United States:—

1. *White Flint*, probably introduced from the Black Sea into New Jersey in 1814. Its peculiarities are strong straw, solid grain, with thin bran; the chaff adheres to the grain so that it does not readily shell out; is little affected by frost; has withstood the Hessian fly better than any other now cultivated. Its usual yield is from twenty to twenty-five bushels per acre.

2. *Improved White Flint.* It is superior to the last in the size of the berry, thinness of the bran, and the weight per bushel.

3. *White Province*, introduced from France. It grows rapidly, yielding much straw; ripens four or five days earlier than the common varieties; withstands cold, and is not injured by insects, but the straw is soft and apt to fall down. It is bald; berry very large and white, yielding flour well and of good quality.

4. *Old Red Chaff.* This originated in Southern Pennsylvania. It is a bald wheat, with a red chaff, but a white grain, and in other respects is similar to the last. On new oak lands it succeeds admirably, when the season is just right, but on old lands it is subject to rust, mildew, insects, and winter killing.

5. *Kentucky White Bearded*, (*Hutchison White Flint, Canada Flint,*) a white chaff; bearded wheat, which endures dry weather remarkably.

6. *Indiana Wheat*, originated in Indiana; white chaff, bald wheat, peculiarly adapted to strong soils.

7. *Velvet Beard or Crete Wheat*, introduced from England twenty-five years ago; a red chaff; bearded, large berried wheat. It is very hardy, not apt to be thrown out by frost nor injured by insects.

8. *Wheatland Red*, originated from the *Virginia May*, by Gen. HARMON; a red chaff, bald wheat, and not apt to rust.

9. *Golden Drop*, an English variety.

10. *Mediterranean*, introduced from the south of Europe in 1829. It is a light chaff, bearded; berry red and long, bran thick, and flour inferior, but it is not injured by insects, and ripens early. (Since Gen. HARMON wrote this, a great improvement in grinding this wheat has been accomplished, and it bears a better character for bread, and is in better repute in market.

11. *Blue Stem*, cultivated in Virginia about sixty years since, but now generally grown in the Northern States. Formerly it was a red wheat, but now it is changed to a beautiful white. It is very productive. This list might be much extended, but it would be of no practical utility.

SPRENGAL analyzed 100,000 parts of dry wheat and obtained the following inorganic constituents:—

SUBSTANCES IN THE GRAIN AND STRAW.

	Grain.	Straw.		Grain.	Straw.
Potash	225	20	Sulphuric acid	50	37
Soda	240	29	Phosphoric acid	40	170
Lime	96	240	Chlorine	10	80
Magnesia	690	32			
Alumina	26	90		1,777	8,518
Silica	400	2,870			

The organic portion of wheat consists of *albumen, gluten, starch*, more than half, *gum, dextrine, sugar*, &c.

The time of cutting affects the weight of produce as well as the quantity of organic matter, and the relative proportions of flour and bran. JOHNSTON gives some experiments in cutting with the following results. That cut twenty days before ripe gave 160 pounds of grain; that cut ten days before gave 220 pounds; that fully ripe 209 pounds. The yield of flour and brand were the same in proportion—in favor of the portion cut ten days before ripe.

The best wheat soils are those which contain a good proportion of clay with

lime and potash. BOUSSINGAULT estimates "rich wheat land" to contain 75 per cent of clay, 10 of sand, 4 of lime, and 11 of humus; but we do not deem it at all necessary for the production of the largest crops that the soil shall consist of three fourths clay—not at all. Nor is 4 per cent of lime essential. In Great Britain, good crops of wheat are taken from very sandy soils, where the alternating system is employed. By adopting a good system of rotation, with turnips and clover, and sheep, we can produce wheat on any arable soil.

As a *scourging* crop, wheat must be placed at the head of the lists of grains. According to BOUSSINGAULT, a medium crop takes from one acre of ground, in grain and straw 17 pounds phosphoric acid, 2 pounds sulphuric acid, 1 of chlorine, 16 pounds of lime, 13 pounds magnesia, 24 pounds potash and soda, 121 pounds silica—all in the straw, and 2 pounds oxides of iron and alumina. It is therefore found impolitic, and indeed impracticable, to grow this grain for several years in succession.

Wheat, more than any other grain crop except barley, requires a *dry soil.* It cannot endure an excess of water either in the soil or sub-soil. It is water which by freezing and thawing causes the much complained of winter killing, rusting, &c. Wheat was never known to winter kill on a dry soil, and seldom to rust. A dry soil, therefore, is the first requisition in growing wheat with profit. Next in importance is *good condition.* No farmer—and especially no poor farmer—can afford to raise a poor crop of wheat. Three poor crops of wheat in succession—where this grain is made almost the sole dependence as it is in the West—will cripple his energies for twice that number of years to follow. The land should not only be well cultivated, but should be supplied with all the elements taken up by the crop as indicated by the above analysis.

Wheat may be safely and profitably grown after corn, barley, or oats, providing the land is in good condition; otherwise it is a bad practice under any circumstances. Taking a series of years into the account, estimating the influence of seasons and the depredations of insects, there is no better method of growing wheat than the old fallow system affords. If there is more labor, there is also less hazard or risk. If there is a loss of the use of the land during one summer crop, there is generally a gain in the amount of crop sufficient to make it up. This system admits of thoroughly working the land which the plan of sowing after another crop will not in every case allow, and this consideration is one of the highest importance. What cannot be done in the best manner, had better be let alone altogether. This is the first rule in arable farming.

The waste of seed is very great in our common broadcast way of seeding. STEPHENS made the following calculation:—Wheat at 63 pounds to the bushel gives 87 of its seeds to the drachm; or 701,268 apothecaries' weight, or 865,170 in avoirdupois weight. Now three bushels of seed are sown to the acre, or 2,595,510 grains of wheat. Suppose that each grain produces one stem, and every stem bears an ear containing the common number of 32 grains, the produce of an acre would be 96 bushels; but the heaviest crop in Scotland rarely exceeds 64 bushels to the acre, or 33 per cent of the seed is lost in the best crops, and 58 per cent in an ordinary one of 40 bushels. This is a subject of great magnitude, although we seldom sow more than a bushel and a half or two bushels of 68 pounds to the acre. The loss of seed is attributable to two causes; imperfect grain and covering too deeply. We are too careless in the preparation of seed for the field. The small light grains should all be taken out, and this may be done to great perfection with the "eagle fan," now manufactured by JARVIS & Co. at Laporte, Indiana.

Then we sow in a very inconsiderate manner—dashing the seed on the ground so rough and uneven that it is with difficulty he who casts the grain keeps a straight course or an even step across the field. In no case should wheat be buried deeper than two inches. In order to germinate freely a seed must have air, warmth, and moisture. If it is covered to deeply it will not sprout for want of air and heat. Old wheat is better for sowing than new. It is less affected by bad weather and insects, and the stalks are more numerous and vigorous. The proper way to keep old wheat for seed, is not to thrash it and let it remain

exposed to air in the bin, but put upon some safe scaffold let it remain unthreshed until seeding time arrives. Then let the threshing be done by horses.

In judging of seed the dimpled end should be distinctly marked, and the point from which the roots protrude must be somewhat prominent as if it was swollen.

THE PRODUCTIONS OF IOWA FOR 1860.

We commend the following letter, says the New York *Tribune*, to the particular attention of farmers and all dealers in farm produce. The writer is a gentleman of intelligence, whose position gives him rare opportunities of obtaining information :—

SIR : I have just returned from an agricultural trip through the northeastern counties of this State, which enables me to give a pretty accurate estimate of the yield of wheat and corn in that section of Iowa. From a partial examination and inquiry in regard to the yield in the middle, southern, and western portions, I think I am enabled to form a pretty correct estimate of the average yield there, also. Owing to more frequent and copious showers, as well as the better adaptation of the soil for wheat, the average yield in the northeast is fully equal to twenty bushels to the acre. But in the middle, western, and southern counties, it is not over from 12 to 15 bushels per acre. Much of the wheat, all over the State, was sown in March, and generally not later than the first week in April. It was sown on a very dry soil, little or no rain or snow having fallen during the previous eight months, and it was not until a month at least, on the average, after the grain had been put in, that sufficient rain fell to moisten the earth. Much of the wheat was above the surface at that time, and at least half had germinated after the first rain. Hence it was very irregular, and it was feared for some time that not more than half a crop would be gathered. Some fields all over the State have been seriously affected by rust and the chinch bug, but not so much as to prevent a yield of 16 bushels per acre as the average of the State. This is double the yield of last year, and nearly four times that of the year before. The quality of the berry is at least 25 per cent better than it has been for years.

I subjoin the breadth of land occupied by wheat for four years with the gross production of each of those years, the first two from official returns, the last two upon estimates based upon as good authority as can be obtained. I esteem the estimate below rather than above a fair computation, at least I am satisfied that it is not extravagant. Twenty-five per cent only on the two previous years, has been added for the breadth of land occupied by wheat in 1859 and 1860 :—

WHEAT.

Year.	No. of acres.		Gross yield, as per census returns.	
1856.....	388,080		5,469,516	bushels.
1858.....	779,909		3,298,254	"
1859.....	974,886	estimate	7,799,088	"
1860.....	1,218,607	"	19,491,712	"

CORN.

From present appearances the average yield of corn for 1860 will exceed that of any year since the settlement of the State. Unless we have an early September frost, as was the case last year, the northern half of our State will exhibit as good, if not a larger yield, than the middle and southern counties. From the best information I can obtain, in addition to my own extensive examination of fields, I am safe in placing the probable average yield at 45 bushels per acre. In many sections of the State it will be from 60 to 70 bushels, while there are numerous fields which will not turn out less than 100 bushels per acre. I subjoin the production of corn for four years past, but I have only placed the increased breadth of land for 1859 and 1860 at one-fourth that of wheat :—

Year.	No. of acres.		Gross yield, as per census returns.
1856	737,213		31,163,362 bushels.
1858	936,096		23,386,684 "
1859	1,109,358	estimate	44,374,320 "
1860	1,248,027	"	56,161,215 "

In order to make an estimate of the probable resources of our State for the year 1860, I subjoin the following from our State census returns:—

Value of cattle sold in 1856	$2,923,258	Value of hogs sold in 1856	$3,127,531
" " " 1858	2,950,187	" " " 1858	2,111,425
Total value of cattle and hogs sold in 1856			$6,050,789
" " " " 1858			5,061,612

The severity of the winter of 1857 caused a serious loss of cattle and hogs, but the increase has been such since as to be a matter of especial remark, from the number sent to the New York market. It would not be out of the way, therefore, to claim an income for the year 1860, from cattle and hogs, even after deducting a fair amount for home consumption, of at least $7,000,000. We shall then have, for this year:—

For wheat, after deducting one-third for home consumption, etc., if sold at only 60c. per bushel	$7,200,000
For cattle and hogs	7,000,000
Making a total, in these two items alone, of	$14,200,000

This sum will go a great way toward liquidating our debts at home and abroad; but if our farmers had expended their means more judiciously, and devoted their energies to the production of more profitable products than wheat, such as cattle, hogs, and sheep, and added cheese, butter, etc., we should have an exhibit of at least one-third more.

I send you the above, that there may be no miscalculation in regard to the actual or probable agricultural products of our noble State of Iowa, of the items mentioned for the year 1860. To place them too high would be unjust to the producers, and to place them too low would discredit the State. I have submitted it to several gentleman having extensive means of information, who assent to its general accuracy.

OFFICE OF SECRETARY OF IOWA FARMERS' COLLEGE,
Des Moines, Iowa, Aug. 1, 1860.

WM. DUANE WILSON.

AGRICULTURAL FAIRS FOR 1860.

Alabama	Montgomery,	October 29 to Nov. 2.
Cotton Planters' Convention	Macon, Ga.,	December 3-20.
Georgia	Atlanta,	October 23-26.
Illinois	Jacksonville,	September 11-14.
Indiana	Indianapolis,	October 15-20.
Iowa	Iowa City,	October 2-5.
Kentucky	Bowling Green,	September 18-22.
Mississippi	Jackson,	November 6-9.
Missouri	St. Louis,	October 24-27.
New Hampshire	Manchester,	October 2-4.
New York	Elmira,	October 2-5.
Ohio	Dayton,	September 25-28.
Pennsylvania	Wyoming,	September 24-27.
South Carolina	Columbia,	November 13-16.
Tennessee	Nashville,	September 10-16.
United States Agricultural Society	Cincinnati, O.,	September 12-20.
Vermont	Burlington,	September 11-14.
Wisconsin	Madison,	September 24-27.

STATISTICS OF POPULATION, &c.

POPULATION OF CHINA.

A correspondent of the Boston *Traveller*, who dates from the frigate Powhattan, May 20, 1860, remarks as follows:—

The population of China has been carried to so high a figure by the Chinese officials in other years, that Europeans have been disposed to consider the whole as nearly fabulous, the Chinese being supposed to aim in this, as in other matters, to secure their own glorification, and create awe and wonder among the "outer barbarians." Thus, in 1780, the census gave a population of 277,548,431, and that of 1812 was 361,693,179, which seemed incredible to the rest of the world, divided into so many petty kingdoms and States. Since the expulsion of the Jesuits, the Russian mission, or college rather, established in Pekin under the authority of the Chinese Government, has been usefully occupied in various departments of science and general knowledge. A work of the members of this college has recently been translated from the Russian into German, bearing the title, "Researches of the Imperial Mission at Pekin," in which, among other matters, tables are given of the population of China, one of which is according to the census of 1842, which had never been made public.

The article in the "Researches" from which the tables are taken, was written by M. SACHAROFF, a member of the college, who obtained the returns of the census for the year 1842 from the Board of Revenue in Pekin, no census of a later date having been taken. It is a long period back, therefore—no less than eighteen years—and the natural increase of the population, even at a low ratio, must add very considerably to the figures and sum total given. Intelligent gentlemen and scholars, long resident in China, say they see no reason to doubt their substantial accuracy. Besides, comparing the census of 1780 and that of 1812 with that in 1842, obviously there is nothing impossible nor impracticable in the returns of the last.

China proper is divided into eighteen provinces, omitting Manchuria, Thibet, and Mongolia, of which the census of Manchuria only is given in the tables, this division of the empire being the native country of the reigning dynasty, and therefore better known and more entitled to honorable notice than the other subdued portions of the empire. Were these to be added, the total population of the empire would be very considerably increased. The entire population of England or the United States is less than that of a single Chinese province:—

Provinces.	Population in 1842.	Provinces.	Population in 1842.
Chih-le, or Pechele	36,879,838	Shen-se	10,309,769
Shan tung	29,529,877	Kan-suh	19,512,716
Shan-se	17,056,925	Sze-chuen	22,256,964
Hu-nad	29,069,771	Kwan-tung	21,252,670
Keang-soo	39,646,924	Kwong-se	8,121,327
Ngan-hwei	36,596,988	Yun-nah	5,823,670
Fuh-Keen	25,799,556	Kwei-chow	5,679,128
Che-Keang	30,437,974	Kiang-se	26,513,889
Hoo-pih	28,584,564	Manchuria	1,665,542
Hoo-nan	20,048,969		
Total			414,683,994

The census of 1780 gave a population of 277,548,431, and the census of 1812 a population of 361,693,179. The ratio of increase from 1812 to 1842, a period of thirty years, would give an increase of 36,454,000 in 1860, which, added to the population reported in 1842, would make the present population of China proper, including Manchuria, 451,137,000. This may seem incredible and purely fabulous to one who has seen only the sparse population in our own country, where neighbors are miles apart. But no figures can stagger the faith of a

careful observer, who wanders through the towns and villages which fill the country in China, wherever he goes, or who has made his way through the almost consolidated masses which block the streets of the great cities, and also, in addition, takes into account the hundreds of thousands who are born, live, and die in their boats and junks in the canals and rivers, and along the coasts, for there are towns and villages on the water as well as on the land.

M. SACHAROFF, as before stated, obtained the returns of the census for 1842 at the office of the Board of Revenue in Pekin. He points out several circumstances which threw more or less doubt on the entire reliableness of the census, one of which is the extraordinary disproportion between the number of families and the individuals reported, the number of families being to the number of individuals nearly as one to two, just as though the parents only were reckoned in the returns, while the children and servants were omitted. This anomaly does not appear in the carefully prepared returns of the military population, which were kept in the War-office, and which were also accessible to M. SACHAROFF, and examined by him. Here he found the proportion of families to individuals to be as 1 to 4; nor can any reason be readily assigned why the proportion should not hold the same among other classes, *i. e.*, every family at an average consisting of four members, which is less than in Europe and the United States, where the average is between five and six. However the anomaly may be accounted for, whether from carelessness of the officials or any other unknown cause, there appears to be no grounds for doubting the general correctness of the returns, whether regard be had to the reported number of families, or to a moderate ratio of natural increase. At the ratio of increase of the population of the United States from 1810 to 1840, periods closely corresponding with those when the Chinese census was taken in 1812 and 1842, the increase within these two dates would be 515,714,000 instead of 53,000,000, the difference in the returns in the census tables, a gain of more than the entire population of the empire in 1860, by more than 100,000,000, and making the population of the empire in 1842 876,000,000, and at the present time 912,000,000, and adding the natural increase since the last census in 1842, and estimable at 36,000,000, at the ratio of increase given in the Chinese tables, and not according to our own.

The ratio of increase in China and all the East is greatly below that in our own country. Still at a very low ratio, if we may place any reliance upon the Chinese census, it will be seen that there may be more truth than fable and self-glorification in the reported population of the empire. I have not attempted precision in my last figures, omitting thousands and tens of thousands, where a million and twenty millions are nothing.

INCREASED WEAR AND TEAR OF THE BRAIN IN MODERN LIFE.

In the report of the Commissioners on Lunacy for the year 1847, says the London *Quarterly Review*, we find the total number of private patients of the middle and upper classes, then under confinement in private asylums, amounted to 4,649. Now, if we skip eight years, and refer to the report of 1855, we find that there were only 4,557 patients under confinement, or about 96 less, notwithstanding the increase of population during that period. If we compare the number of pauper lunatics under confinement at these two periods, we shall find a widely different state of things; for in 1847, there were 9,654 in our public and private asylums, whilst in 1855 they numbered 15,822. In other words, our pauper lunatics would appear to have increased 6,170 in eight years, or upwards of 64 per cent. It is this extraordinary increase of pauper lunatics in the county asylums which has frightened some psychologists from their propriety, and led them to believe that insanity is running a winning race with the healthy intellect. But these figures, if they mean anything, prove that it is not the intellect of the country that breeds insanity, but its ignorance, as it cannot for one moment be contended that the great movements now taking place in the world originate with the laboring classes. We shall be told, we know, that there is a constant descent of patients from private asylums to public asylums;

that the professional man and the tradesman, after expending the means of his friends and family for a year or two in the vain hope of a speedy cure, becomes necessarily in the end a pauper lunatic, and that this stream aids to swell the numbers in the county institution. Allowing its due weight to this explanation —and those who know public asylums are well aware how small, comparatively speaking, is the educated element—yet, as the same disturbing element in the calculation obtained at both periods, we may safely conclude that both the figures are not thereby essentially altered.

A still more convincing proof that mental ruin springs rather from mental torpidity than from mental stimulation, is to be found by comparing the proportion of lunatics to the population in the rural and the manufacturing districts. Sir ANDREW HALLIDAY, who worked out this interesting problem in 1828, selected, as his twelve non agricultural counties, Cornwall, Cheshire, Derby, Durham, Gloucester, Lancaster, Northumberland, Stafford, Somerset, York, (West Riding,) and Warwick, which contained a population at that time of 4,493,194, and a total number of 3,910 insane persons, or 1 to every 1,200. His twelve agricultural counties were Bedford, Berkshire, Bucks, Cambridge, Hereford, Lincoln, Norfolk, Northampton, Oxford, Rutland, Suffolk, and Wilts, the total population of which was 2,012,979, and the total number of insane persons 2,526, a proportion of 1 lunatic to every 820 sane. Another significant fact elicited was, that whilst in the manufacturing counties the idiots were considerably less than the lunatics; in the rural counties the idiots were to the lunatics as 7 to 5! Thus the HODGES of England, who know nothing of the march of intellect, contribute far more inmates to the public lunatic asylums than the toil-worn artisans of Manchester or Liverpool, who live in the great eye of the world, and keep step with the march of civilization, even if they do but bring up its rear. Isolation is a greater cause of mental ruin than aggregation—our English fields can afford cretins as plentifully as the upland valleys of the mountain range seldom visited by the foot of the traveler; whilst, on the other hand, in the workshop and the public assembly, "As iron weareth iron, so man sharpeneth the face of his friend."

POPULATION OF ALEXANDRIA.

Under the official returns, as reported to the Department, the population of the city aggregates 11,206, and that of the county 1,367—making a total of 12,573. The following is the aggregate of each class of the population as returned by the census of 1850, and 1860:—

	Alexandria city.		Rest of county.	
	1850.	1860.	1850.	1860.
Whites	6,420	8,932	795	962
Free colored	1,308	1,248	105	147
Slaves	1,067	1,026	321	358
Total	8,795	11,206	1,221	1,367

The following table shows the progressive increase of population in city and county since 1800:—

	1800.	1810.	1820.	1830.	1840.	1850.	1860.
City	4,196	7,227	8,218	8,263	8,459	8,795	11,206
County	....	....	9,703	9,608	9,967	10,016	12,573

It will be seen by the first table that, while the increase in the population of the city since the last census has been about thirty per cent on its previous population, the increase in the county has been only about twelve per cent. In the city the increase of the white population has been 2,512; while the free negroes have decreased 60, and the slaves 41. In the county the white population has increased 167, the free negroes 41, and the slaves 37—thus showing that while the white population of the city and county has rapidly increased, the number of negroes has diminished.

RUSSIAN AGGRESSION AND EXTENSION.

The *Journal de Statistique Universelle* publishes the following table of the successive encroachments of Russia from the 14th century up to the year 1832:

	Extent in geographical miles.	Population.
GRAND DUCHY OF MOSCOW.		
In 1328, at the accession of Yvan, (Kaleta).....	4,656	6,290,000
1462, at the accession of Yvan I.....	18,475	.....
1503, at the death of Yvan I.....	37,137	.....
1584, at the death of Yvan II.....	125,465	.....
1645, at the death of Michel I.....	254,361	.....
1689, at the accession of Peter I.....	268,900	16,000,000
EMPIRE OF RUSSIA.		
1725, at the accession of Catherine I	273,814	20,000,000
1762, at the accession of Catherine II	319,358	25,000,000
1793, at the death of Catherine II	331,850	33,000,000
1825, at the death of Alexander I	367,494	56,000,000
1831, at the taking of Warsaw.....	369,764	60,000,000

That is to say, that during the last two centuries Russia has doubled her territory, and during the last hundred years has tripled her population; her conquests during sixty years are equal to all she possessed in Europe previous to that period; her conquests from Sweden are greater than what remain of that kingdom; she has taken from the Tartars an extent equal to that of Turkey in Europe with Greece, Italy, and Spain; her conquests from Turkey in Europe are more in extent than the kingdom of Prussia without the Rhenish provinces; she has taken from Turkey in Asia an extent of territory equal to all the small States of Germany; from Persia, equal to the whole of England, (United Kingdom;) and from Poland, equal to the whole Austrian Empire. A division of the population gives—

Tribes of the Caucasus.....	2,000,000
Cossacks, the Georgians, and the Khirguiz.....	4,000,000
Turks, the Mongols, and the Tartars.....	4,000,000
Ouralians, the Finlanders, and the Swedes	6,000,000
Muscovites, (of the Greek Church).....	20,000,000
Poles, (Roman and Greek Church united).....	24,000,000
Total.....	60,000,000

The population of ancient Poland counts for two-fifths of the total population over an eighth part of the territory. and the Muscovite population for one-third of the total number over a tenth of the territory; in other words, the Polish element is in a great majority, as compared to all the others.

A NEW EMIGRATION.

We find in *Le Nord* an account of a most remarkable migration now going on from the Russian to the Turkish possessions. It shows that the nomadic instincts of the old Scythian race are not yet lost. The whole Tartar population of the Crimea—men, women, and children, 300,000 strong—are leaving that fertile peninsula for the rigors and hardships of a life in Asia Minor. The Russian Government offers no opposition. Its experience in the Crimean war was sufficient to show that the Tartars never would make good Russian subjects, and in times of danger would always be a cause of weakness rather than of strength. Whole villages rallied to the enemy, serving as entertainers, spies, guides, and at Eupatoria as light troops. These little treasons were pardoned by the treaty of Paris, but the fact was not forgotten by the Russian or by the Tartar. A project was started to remove them to a central portion of the empire, but Alexander has too strong a sense of justice to exile a whole race to what to them would prove a sort of Siberia or Botany Bay. The war, however, roused the

national spirit of the Tartars, and the hope which was raised by it of reunion to a race kindred to them in blood, language, and religion, they have at length determined to realize at any cost. The example of the Tcherkesses in the Caucasus, and the artificial excitement raised by Turkish emissaries, decided them to make a general movement this spring, and they have put no seed in the ground. The Russian Government consoles itself with the idea that the extraordinary fertility of the soil of the Crimea will attract German emigrants, who are far more valuable to the State, and under whose industry the peninsula may regain its fame of the granary of the East.

MERCANTILE MISCELLANIES.

COMMERCE OF NEW YORK.

The Annual Report of the New York Chamber of Commerce has been published in an octavo volume of 364 pages. The volume contains the proceedings and special reports of the year 1859; a list of members, January, 1860, with the by-laws in force; also the laws of the State, passed 1860, in reference to commercial matters; and elaborate reports on the following subjects for the year 1859:—Asia, (commerce with;) Assay-office, New York; Banks; Battery Extension; Boot and Shoe Market; California trade; Canals of New York; China trade; Clearing-house of New York; Coal trade; Coffee trade; Coinage; Collisions at Sea; Coolie traffic; Cotton; Cuba trade; Currant trade; Decimal Weights and Measures; Domestic Manufactures of New York; Drug trade; Dry Goods trade; Dye Woods; Encroachments on the Harbor; Fire in Cotton Ships; Frauds in Cotton; Freights; Fruit; Hemp Market; Hudson River; Indigo; Insurance, Marine and Fire; Key West Wrecks; Leather trade; Lumber trade; Magnetic Telegraph; Naval Stores; Newark Bay; Population and Debt of New York City and State; Quarantine; Reciprocity Treaty; Rice; Salt Production; Savings Banks; Sandy Hook; Staves; Sugar; Taxation in New York; Tea trade; Tobacco trade; Turpentine; Weights and Measures; Wine and Liquor trade, &c.

One of the most valuable contributions to the Chamber of Commerce report, is the annual summary of marine losses, showing the number of ships, steamers, barks, brigs, and schooners lost each month of the year, with the amount of loss on each. The official documents are also of value, and find a prominent place, viz.: Treaty with China; progress of debt, taxation, and real and personal property each year since 1805.

The executive committee acknowledge interesting and acceptable details contained in the official and other reports of the following gentlemen—information highly necessary to illustrate the important subjects under consideration:—Hon. Howell Cobb, Secretary of the Treasury of the United States; Hon. Wm. B. Reed, of Philadelphia; Professor John H. Alexander, of Baltimore, Md.; Professor Alexander Dallas Bache, Superintendent United States Coast Survey; James Ross Snowden, Esq., Director of the United States Mint; D. H. Craig, Esq., of New York; D. T. Valentine, Esq., Clerk of the Common Council, New York; J. H. Upton, Esq., Special Agent of New York Board of Underwriters.

PROFITABLE INVESTMENTS.

There are at this moment many cautious persons in those lines of business which are conducted on the cash system, who are seeking safe investments for capital, but rendered distrustful by the financial difficulties through which the country has recently passed. Let such persons keep two principles steadily in view, and they need not withhold their capital from its natural union with labor, from any sense of insecurity. Let that capital be so invested as to give occupation to labor directly employed in producing something as generally useful to mankind as possible. Because men will always continue to want those objects, and be willing to pay liberally for the use of that capital, which renders their production most abundant. A telegraph company, for example, which, by an application of science, transmits the most important intelligence to distant points at a trifling cost, will, if well conducted between cities of sufficient importance, be sure to be a profitable investment.

But here a second principle comes in. Every man should, as a general rule, invest his money in some way connected as directly as possible with his own pursuits in life, or so that he be intimately acquainted with all concerning it. If farmers employ their accumulating wealth in such railroads as will convey their produce to market, they will form no slight judgment of how the operations are conducted, and the officers' conduct, and gain not only the dividends of their stock, but reap a rich reward in the increased value of their lands, and convenient access to a market. It is because railroad projects have been so often started and managed by speculators, instead of the persons whose knowledge and other interests were connected with the state of the district, that unprofitable lines have sometimes been undertaken, or at least extravagant hopes raised, frauds carried on, and failures followed. It is a law of no mean importance in political economy, that the same investments of capital that will be profitable for one, may occasion loss to another.

Upon the same principle, the merchant might well employ some of his surplus capital in shares of a manufacturing company, with the demand for whose productions his business may have made him familiar. In like manner let all who labor for a support, lay by and invest their savings in those forms of capital with whose value and operation they are intimately acquainted. Thus, if clerks would invest their surplus earnings, as opportunity offered, in such mercantile houses as they knew to be sound, instead of speculating on the rise and fall of some fancy stocks, they would soon become partners in the wealthiest firms of the city. Or, if the seamstress would, instead of railing against sewing machines, labor and economize, until she were able to pay the first instalment for the purchase of one, she would soon double and treble her earnings, and be able to lay by an ample provision for future contingencies.

The best truth of these views is that the great source of the recent mercantile pressure has been the adoption of an exactly opposite policy in both the respects to which we have alluded—*i. e.*, the large sums vested by all classes in useless or in speculative objects. Extravagances of decoration and living have characterized the wealthy, while those of dress and luxuries have swallowed up all the savings of such as are dependent on their own earnings alone. Instead of having money to lend, they have had it to borrow; instead of augmenting their

means through invested capital, producing a return, they have been perhaps paying interest for money squandered in consuming the productions of others.

A still more fruitful source of distress has been the neglect of the second great principle. Men have invested their capital too far away from their own eyes and supervision, in pursuits unconnected with their own line of business, and about which they knew nothing, except that some cunning speculator assured them that large dividends were paid, concealing the fact, of course, that they were paid out of the capital stock, and not out of the earnings of the investment. All the bubble speculations, from those in morus multicaulus, or in Eastern lands, to those of New York city property, have deceived the unwary, chiefly through investments of capital made by those who know nothing of the subject.

NEBRASKA CITY AND THE WEST.

A correspondent of one of our cotemporaries of New York, writing from Nebraska City under date of August 11, 1860, gives the following graphic account of the prairie regions of the West, and of the progress of Nebraska City in population and wealth :—

At this point the river washes the bank of a bold eminence, on which is beautifully located Nebraska City. Back of it, in gentle undulations, for many miles, rolls a prairie, for beauty of scenery and richness of soil not to be surpassed in the West. This city has now a population of about 2,000, although the gold-fever has carried away many of its inhabitants. A number of fine brick buildings are among its dwellings. Previous to April last, it could boast two of the finest hotels west of St. Louis. The fire of a few months since has made sad havoc, having destroyed one of the hotels and a block of fine brick stores. The effects of the financial revulsion are still upon them ; but little building has been done during the last year.

The time seems approaching when nations shall be born in a day. Only six years ago, when I first visited Nebraska, I slept in the first frame house, then just built, in this city. The deeply trodden trail near the river showed the highway of the Otoe and Pawnee. At that time the Otoes were performing their yearly visit to some southern tribe. On such occasions the Indian village is deserted, and the whole tribe, including ponies and dogs, go to share the neighboring hospitalities. Here an aged chief, who had often led the warriors in the chase for the buffalo, and the hunt for the scalp of the red brother, with the same stoical composure, and who showed on his breast and forehead the scars of Indian warfare, was taken ill, and although there was there no knight of the lancet and saddle-bag, no mercury to hasten his departure, suddenly died, and was buried with all the "pride and circumstance" due to the head of the nation. The rude grave was prepared. The chief, wrapped in his blanket, was placed in a sitting posture in his resting-place ; the weapons of the chase, arms of strife, ornaments of his person, and the rude dishes which were supposed to be necessary in the spirit land, were laid by his side. Rude sticks, placed like the roof of a house, were covered with a little earth. Each maiden cut a lock from her dark flowing tresses, and threw it upon the grave ; while a company of young warriors, who had followed in procession, having previously obtained small sticks of wood, at one end adorned with shavings, and the other split through the center, made an incision in the fleshy part of the left arm large enough to hold the split stick, and then, with all their trained indifference to pain, assumed the proud distinction of mourners, went to the foot of the grave, and with cheerful countenances drew the sticks of wood from the wounds, dripping with warm blood, and threw them upon the ground. It was a solemn burial service. Then planting at the head a pole with a white cloth fastened,

to mark that royal flesh was mouldering into dust beneath, the tribe in single file marched away to the south.

The curious travelers soon carried away as mementoes the hair of the maidens and the sticks of self-inflicted torture; the rough winds buried the flag beneath the rank prairie grass. A city has risen upon the burial-place of the Otoes, and now no monument marks the spot where the aged warrior sleeps.

Gen. DOWNS erected the first building here. He deserves well of his country. A true patriot and brave soldier, he periled his life in the everglades of Florida and on the plains of Mexico.

There are now one Methodist church, and a second in course of construction, and a large and neatly-arranged Presbyterian church. The present pastor has ministered to this people some four or five years, and is an able preacher, and a faithful shepherd over the flock committed to his care.

Here the natural scenery is grand. Stretching away to the east, the eye crosses the great river-bottoms for over ten miles, and rests upon the bluffs which bound them, having the appearance of high mountains, while to the north, south, and west stretch away the nodding corn-fields, and the graceful ground-swells of the prairie. Ride in either direction from the city, and you get many miles away before you lose sight of its church-spire and buildings. Although the country has the appearance of hills, yet on the summit of each roll you can overlook the whole country, in front and rear. To illustrate: A tall cotton-wood tree stands in a ravine, yet, when the country was *new*, the lost traveler for twelve miles would correct his journey by its green foliage.

The whole country has the appearance of a mighty ocean, recovering from the shock of the tempest, and while rocking itself into the quietude of rest, instantly becomes solidified, and the changing swells of the ocean become the fixed billows of the prairie.

PHILOSOPHY OF EXPENDITURE.

Dr. JOHNSON says, "he who drinks beer, thinks beer;" and a recent writer in an English periodical, the *Saturday Review*, declares that those who occupy themselves with "endless care for small savings, get to think candle ends," as their reward. There never was a happier expression. It is almost equal to Dr. JOHNSON, and would be quite so, were it not for the probability that the first epigram suggested the other; the beer hinted the tallow. In the same essay the *Review* points out in the most amusing manner the folly of preaching Poor Richard to the world in the present age. We subjoin a paragraph from the essay:—

Economy is a good thing; but among the classes who, whether they are economical or not, are sure never to go to bed hungry, there is nothing in the triumphs of economy or in the accumulation of money to compensate for the deterioration of mind and feeling, which is almost sure to accompany the pursuit of so trumpery an end as screwing fourpence a week out of the butter bill. As intellectual education is more widely spread, this is more keenly felt, and persons become more unwilling "to lose life for the sake of the causes of living." It seems better to lay out money on learning and on mental cultivation, than to tie it up in a stocking. And the state of society at present helps this feeling. The old saying that a fortune is more easily saved than got is no longer true. Its truth belongs to a time when each class was shut up in its own narrow limits, when locomotion was difficult and the chances of success in remote adventure were extremely small. Now a fortune is more easily got than saved.

The world is open to the enterprising, and, if they please, they may pick up gold abroad instead of painfully hoarding up copper at home. The habits and natures of families are naturally accommodated to this altered state of things. A prudent father does better by spending his income on his children, so as to give them a fair start, than by neglecting their present advancement, in order to prepare for their future needs. His object is not to teach them to save money, but to get it, and spend it rightly; and it is impossible to teach this, unless a certain

liberality and generous largeness in dealing with money. porportionately to the family income, is openly encouraged. There is, indeed, a sort of idiotic wastefulness, by which silly people manage to dribble away vast sums yearly, without anything to show in return—that a parent ought of course to prohibit, by every means in his power. But the general principle remains that a fortune should be earned, and not inherited or saved, and that it should be spent with somewhat of easiness and magnanimity. There is one test which will act as a perfect safeguard against too wide a departure from the rules of prudent economy. So long as *debt* is abhorred, everything is safe.

The writer of the above possesses practical wisdom and knows how to put it in words. Of course he does not intend to say that one must, as a duty, spend all that he can get, though he does think that "an income may be better spent without too much thought, than if every item is scrutinized, and every penny paid away with a groan." Having quoted, at some length, the practical wisdom of the *Review*, we give, at the risk of the ire of the ladies, a witty contrast between the habits of men and women :—"The difference between the two sexes may often be stated thus : a man gives two shillings for an eighteen-penny thing he wants, and a woman gives eighteen pence for a two-shilling thing she does not want."

DEAD MEN'S SHOES.

One of the worst mistakes men make is, in leaving gifts and charities to be dispensed after their death; and this applies as well to mere donations as to legacies to children and relatives. In truth, of such a one it may be said, "he heapeth up riches, and knoweth not who shall gather them."

The grasp upon wealth—even with the benevolent—is tight, and, in most cases, death is the only power which can loosen it; but if men would reason upon the subject of their donations, as upon any other business transaction, then the man of moderate wealth would content himself to drop his gifts along the path of life, even if in small sums, rather than risk the danger from squandering of large legacies after his death; and the man of overflowing riches would direct his thousands with his own loving hand, and when his own eye could see that his intentions were not thwarted, nor his benevolence abused.

Rich men, too, make sad errors in regard to their children. It is a very common idea that because the father has toiled early and late for his money, eating the bread of frugality, and wearing the robe of economy, that the son must do likewise, whether he has the disposition or not. The difference in the great facts which underlie the whole being of father and son, are forgotten; to wit, that one was born without wealth, the other was born in affluence. Hence the one felt the entire dependence upon his own exertions, and the other did not.

To this error can be traced the ruin of so many young men, whom the death of a father leaves rolling in wealth. It is bad enough for a boy to have the curse of wealthy parentage upon his birth, but it adds to that curse to keep him waiting for his father's shoes. A division of the wealth with that son, while the father can, at least by his advice, control it, would materially lessen the chances of injury to the child, and bring audible prayers for the preservation of that father's life, rather than secret wishes for his death.

Of this great error in leaving wealth to be distributed after death, the famous McDonough estate of New Orleans affords a glaring illustration. At McDon-

ough's death, his estate was estimated at $5,000,000; now it is estimated at $2,230,000; and it has gone like water through a seive as follows:—Over $250,000 spent in litigation; over $100,000 in charges and commissions; over $500,000 lost in interest and delays; and over $500,000 lost in pillage and decay.

The paper from which we take the statement says:—

Not one dollar of charity had ever yet been received from the estate; not one negro had been sent to Liberia, nor the tears and sorrows of one poor orphan boy ever been assuaged. At every point and in every way, the last will and testament of John McDonough had been frustrated and thwarted.

SILKS AND SERVANT GIRLS.

A Philadelphia correspondent of the New York *Tribune* moralizes upon the progress of extravagance in dress among the working female portion of the community. The remedy of restraining women by sumptuary laws is a very old one, leveled at the same evil centuries ago, with very little effect however. People cannot be made prudent, or frugal, or temperate, or wise by law; the press and the schoolmaster are your true repairing agents:—

The slaughtering of silk goods at the New York auctions is making the article so cheap and plenty here that our feminines are crowding the retailers' counters more anxiously than ever, to buy not what they want or need, but simply because these trappings are cheap. Looking in at these crowded bazaars, one is struck with the large proportion of servant girls who are spending their money for silks. Indeed, the consumption of these luxuries among this class is enormous. They flaunt in our fashionable thoroughfares in skirts as ample and finery as gaudy as their mistresses. When sickness overtakes them, they are left without a dollar, beggared by the pernicious example set them by their employers. It must be evident that much of the general stagnation of trade is owing to this insane extravagance among American women. Your importers may lose heavily by glutting the country with these superfluities; but let them sell as ruinously low as they may, the country is a greater loser by consuming them. The women of this nation having never yet saved it, we should adopt measures to prevent them from thus destroying it.

THE PRESERVATION OF MILK.

From the *Le Genie Industriel* we learn that several patents have lately been secured in France by M. Neunschwander, for the preservation of milk. The first consists in putting it into bottles immediately after it is drawn, when the bottles are hermetically corked and placed in a vessel containing water of the temperature of about 57° Fah. The water is then made to boil in a close vessel for an hour. The fire is then extinguished, and the vessel opened and suffered to cool for a quarter of an hour. The bottles are now taken from the water and the operation is completed.

For larger amounts, the process is continued longer; thus, for quantities of from ten to twenty quarts, the boiling must be continued from one-and-a-half to two hours, in vessels closely corked and set in a boiler containing water at a temperature of 57°.

A second process is thus conducted:—as soon as the milk is drawn, it is put into a copper boiler lined with tin. It is then set boiling, and as soon as ebullition has fairly commenced, it is poured into vessels prepared for it, which are

hermetically closed as soon as it can possibly be done. While still warm, these vessels are put into a boiler containing water at a temperature of 57°, and submerged nearly three inches. This boiler is closed with a cover, set on fire, and to boil from a half to two hours, according as the bottles range in capacity from one to twenty quarts. The boiler is then opened and suffered to cool from a quarter to a half hour. The fire should always be moderate, that the heat of the vessels may not rise too high.

The patentee likewise varies his processes, as follows :—The milk, when quite fresh, is put into a vessel and gently boiled and shaken for about ten minutes, when a decoction of horse-radish is put into it, in the proportion of almost a tenth. The decoction itself is prepared by mixing about one hundred grammes of raddish with three quarts of milk. The mixture is then gently boiled and passed through a linen cloth, or some other fine strainer.

After this decoction has been poured into the milk, the boiling is stopped and the milk poured into bottles at a temperature as high as they will bear. They are then corked, and the operation is completed.

THE TEST OF RESPECTABILITY.

To judge from the conduct and ideas of some persons among both sexes, respectability consists in driving fast horses, wearing rich lace, drinking champagne, or idling away life. To cut a figure in society, on the promenades, or at a watering place, appears to be the sole aim of many women, who surely were born for better things. To cultivate a moustache, sport a "two forty" trotter, or act as a model exhibitor of coats for some fashionable tailor, seems to be the conception of a dignified and respectable career, formed by not a few of the men.

Now being respectable, in either man or woman, is, to our notion, doing what is duty. The poorest person even, in what is considered popularly the humblest avocation, who pays his debts, obeys the law, and fulfills his other obligations to society and to his fellow-creatures, is a thousand times more respectable than the wealthy idler, the educated spendthrift, the callous miser, or the fashionable fool. So the modest female, whether seamstress, book-folder, press-tender, storekeeper, or even house-servant, is, in the true sense of the word, infinitely more respectable than the extravagant wife who is ruining her husband, than the thoughtless votary of fashion, than the butterfly flirt. In a word, worth, not wealth, constitutes respectability.

Again; it is what really is, not what merely seems to be, respectable, that men of sense honor as such. The millionaire, who has obtained wealth by knavish practices, though he may creep through the meshes of the law, cannot escape the indignant vervict of an honest public; he may give grand dinners, drive a showy equipage, inhabit a palace, and even subscribe ostentatiously to benevolent purposes; yet, with all his outside gilding, people recognize the rottenness within, and from the very summit of his splendor, trace back the slimy track by which he rose. Such a man, let him do what he will, can never become respectable. A gulf as wide as that between Dives and Lazarus, separates him from the esteem of the good. So also the low-minded in all pursuits, those cruel and unfeeling towards their fellow-men, charlatans, of every hue, hypocrites, demagogues,

toadies, sharpers, and all others of a similar kind, cannot be respectable. Pinchbeck never yet passed long for gold. Or, as the old proverb has it, "you cannot make a silk purse out of a sow's ear."

As people are generally what habit renders them, it is for the young that these remarks are meant. If they are shams now, shams they will remain; nothing, alas, can ever make them respectable. But the young have yet their habits to form. Let them take a high standard, and become truly respectable.

THE KEY WEST NEGROES.

The following is the official report of the United States Marshal concerning the final disposition of the Africans in his charge:—

U. S. MARSHAL'S OFFICE, SO. DIST. OF FLORIDA,
KEY WEST, July 26, 1856.

SIR:—For the information of the Department, I beg leave to submit the following statement, showing the number of Africans delivered to me by the commanders of the United States steamers Mohawk, Wyandotte, and Crusader. Also, the number of births and deaths which occurred here, and the number shipped on board the three vessels chartered by the African Colonization Society to carry them to Liberia:—

Number of Africans received from the bark Wildfire	507	
" births	1	
		508
Number of Africans received from the bark William	513	
" " " " Unknown	411	
		1,432
Number of deaths from cargo bark Wildfire	95	
" " " William	171	
" " " Unknown	28	
		294
Number of Africans to be shipped		1,138
" " shipped on ship Castilian	400	
" " " " South Shore	355	
" " " " Star of the Union	383	
		1,138

By the next mail I will furnish the Department with the proper certificates of the death and burial of 294 Africans specified in the within statement.

Very respectfully, your obedient servant,
FERNANDO J. MORENO, United States Marshal.

MONUMENTS OF HUMAN LABOR.

Nineveh was 15 miles long, 8 wide, and 40 miles round, with a wall 100 feet high, and thick enough for three chariots abreast. Babylon was 50 miles within the walls, which were 75 feet thick and 300 feet high, with 100 brazen gates. The Temple of Diana, at Ephesus, was 429 feet to the support of the roof. It was a hundred years in building. The largest of the pyramids is 481 feet high, and 653 on the sides; the base covers 11 acres. The stones are about 30 feet in length, and the layers are 208. It employed 330,000 men in building. The labyrinth in Egypt contains 300 chambers and 12 halls. Thebes, in Egypt, presents ruins 27 miles round, and 100 gates. Carthage was 23 miles round. Athens was 25 miles round, and contained 359,000 citizens and 400,000 slaves. The Temple of Delphos was so rich in donations, that it was plundered of £500,000, and Nero carried away from it 200 statues. The walls of Rome were 13 miles round.

FRAUDS IN TRADE.

When people read that the gold watches they buy have really very little gold in them; that the jewelry they purchase is one-half of it bogus, and their gold and silver ware is not worth a fifth of the value set upon it, they are struck with the enormity of the fraud practiced upon them by dishonest dealers; but there are other frauds, which, though less extensive in single instances, are far greater in the aggregate, of which they are the daily victims. Shopkeepers frequently find their goods short in the specified number of yards in the piece. It was proven in an English court, quite recently, that a very distinguished maker of sewing cotton made up short spools for certain markets. In the articles of sewing silk and knitting zephyr, we are informed, there is the same kind of fraud perpetrated, and, considering the enormity and universal use of sewing silk, this fraud must prove a very profitable one to the dealers. The standard weight of sewing silk is 16 ounces to the pound. Custom has reduced this to 12 ounces. The practice of dishonest dealers is to put up 5 ounces to the half pound instead of 6, and in some cases 4 ounce, and even 3 ounce, packages have been offered to retailers in this city to be sold as 6 ounce packages, with the assurance that this was becoming the common practice. In retailing sewing silk, weights are used which contain only twelve drachms to the ounce instead of sixteen, and some have as low as eight drachms only, the half and quarter ounces being proportionately reduced.

INDUSTRY IN JAMAICA.

A late number of the London *Economist* has the following table of the exports from Jamaica of unrefined sugar for the year 1835 to 1859, inclusive. Though the population of that island has increased about 100.000 since the act of emancipation, yet the production of one of her main products of industry has fallen off nearly three-fourths since 1832.

EXPORTS OF UNREFINED SUGAR FROM JAMAICA.

	Pounds.		Pounds.		Pounds.
1835.....	128,641,120	1845.....	83,201,104	1854.....	56,636,608
1840.....	58,076,592	1849.....	70,949,648	1859.....	47,939,600

The exports into Great Britain of unrefined sugar during the following years, were—

	Pounds.		Pounds.		Pounds.
1849.....	55,605,536	1854.....	273,200,592	1859.....	393,440,547

WEIGHT OF VARIOUS ARTICLES OF PRODUCE.

The following is the established weights of various articles of produce:—

A bushel of wheat, sixty pounds.
Of shelled corn, fifty-six pounds.
Of corn on the cob, seventy pounds.
Of rye, fifty-six pounds.
Of oats, thirty-five pounds.
Of barley, forty-eight pounds.
Of potatoes, sixty pounds.
Of beans, twenty pounds.
Of clover-seed, sixty-two pounds.
Of timothy-seed, forty-five pounds.
Of flax-seed, fifty-six pounds.
Of hemp-seed, forty-four pounds.
Of buckwheat, fifty-two pounds.
Of blue-grass seed, fourteen pounds.
Of castor-beans, forty-two pounds.
Of dried peaches, thirty-three pounds.
Of dried apples, twenty-four pounds.
Of onions, fifty-seven pounds.
Of salt, fifty pounds.

THE BOOK TRADE.

1.—*The Wild Sports of India;* with remarks on the Breeding and Rearing of Horses, and the formation of Light Irregular Cavalry. By Capt. HENRY SHAKSPEAR, Commandant Nagpore Irregular Force. 12mo., pp. 283. Boston: Ticknor & Fields.

As the title indicates, this books comprises a series of hair-breadth escapes and successes experienced by an Indian hunter in the jungles of India—an Englishman, by the way. It has been written, he says, "not so much for the instruction or edification of the old and experienced hunter, as to teach the young and uninformed." Reasoning, with great good sense, in this way—that the ardent and excitable youth, just free for the first time from the trammels of school, love and are formed for excitement, and excitement they will have at all hazards, and that activity and employment are necessary to keep youth from vice—prone by nature, as we all are, to it, and more easily allured to its temptations than to good. This being the case, let it be manly exertion, rather than feasting, rioting, or debauchery. To this end, while not holding up amusement as the business of life, he would recommend the leisure hours of those blessed with the gifts of good sense, energy, and strength, to take to the sports of the field, become good horsemen and expert riflemen—inure themselves to toil while they are young, that a green old age may reward them when the hand shall have forgotten its cunning. The book, though evidently written by one who understands his profession, and doubtless a proficient in cunning woodcraft, still bears evidence of that egotism which appears inseparable from the personal narratives of nearly all traveling Englishmen, in relating exploits in which they have participated. As an evidence of the mystery and palpable importance they contrive to throw around even the slightest circumstance, and which, to a less enthusiastic, or we might say, egotistical mind, dwindles down to about nothing, we give but two illustrations where with time and space we might many. "In 1848, while stationed at Bolarum, hearing that a large bear had taken refuge in some canes near by, I immediately started for the spot, and having placed a lot of beaters at one entrance to shout, and so drive the bear out, I stood at the other, ready to shoot him when he bolted. This was quite successful, and out he went, I fired three balls at him within the first twenty-five yards; but from my not seeing the deadly part to fire at, he went on in spite of the wounds. I followed him by his blood; but being very lame, and with a slipper fastened round my afflicted foot, when I came to the next mass of rocks, I sat down at the bottom, telling my people to carry on the track. They had scarcely gone on a hundred yards from me, when they beckoned to me to come up, and pointing down through the crevice of the rock, showed me what I thought was the wounded bear. I fired and *heard my bullet hit;* but to my astonishment, out went two bears from below me. One of them almost immediately rolled over; and the other (which is very common with bears) stopping to condole with him. I fired at, and knocked him over also. Before I could load my rifle, the smallest bear of the two got up and entered a large jackal-earth on the other side of the rock. The other bear also began wandering about, as if looking for something. There were several coolies, native hunters, who carry matchlocks and are great skikarees (hunters) out with me; and I thought that by telling them to go and fire at this other bear, the noise would put up out of the hole the one that was close to me. The coolie who valiently approached the other bear was immediately charged, and bolted up to me saying 'The bear is not wounded at all; you had bettter come and shoot it yourself if you want it!' I therefore went down and fired another shot. Then taking a short spear, and thinking this would be a good opportunity of trying the feat of spearing a bear, I brought the point to the front. The bear charged down from thirty yards at full gallop so soon as she

saw me, and I stopped her with a spear in the withers. I had before this told my shikaree, who had my gun in his hand, that I would *spear this bear*, and that he was on no account to shoot, unless the bear got hold of me in the scuffle. Directly the bear received the spear, she threw herself on her back, and I was not strong enough to hold her down, so disengaging herself, and before I could straighten the spear again, she rushed upon me. The crooked shaft prevented me from spearing straight, and the blade passed only through the side. She very nearly caught me round the waist, but I drew out the spear, and as she again charged in blind fury I allowed her to pass me, in doing which I sent the spear in behind the shoulders. As usual, she threw herself upon her back, and before she could recover herself, putting my shikar knife between her fore paws, I sheathed it in her heart, killing her dead. My *shikaree, with the rest of the men, had bolted.*" And again, when speaking of the requisites of a good hunter, "one of the great secrets in stalking game in the jungles, is to know how to walk silently, both in putting the foot on the ground and in not rustling the bushes, branches, or grass. The pace to walk at must be regulated by many circumstances. The kind of foot which will fall most silently must be given by God; for it must be naturally arched in the instep, and have its corresponding concave in the sole. Only this formation of foot will allow of a silent and firm tread, and will give the elasticity and strength necessary to support the weight of the body through a long day's toil without jarring the limbs above it, or wearying the muscles and tendons which have to move it. A foot of this form is also less liable to bruises from stones and hard ground. The shoe or boot must not be made with thick soles. I myself use Wellington boots, to keep the spear grass out of my ankles; but if one's work is among rocks, which it may be in bear or ibex shooting, the soft sambur-skin shoe will be best. You can have it made as light as a racket-shoe." Shade of Davy Crockett! what think you of this? Verily there is no good ale but that distilled of Thames water, and as Falstaff would have it, but one great man in the kingdom, *and he waxes old and fat.*

2.—*The Ebony Idol.* 12mo., pp. 283. New York: D. Appleton & Co.

This little volume will be found another touch upon the negro lyre, and all those not yet weary with this eternal harping upon the negro string will find abundant here to whet up their morbid sensibilities. Yet we would warn the *positives* to be careful how they touch it, for it is charged to the muzzle against all those philanthropists who have been so long exerting their zeal in the "holy cause"—threatening annihilation to our Southern brethren—to tear up the national flag, and boldly flouting their fists in the face of Uncle Sam—or they will get their fingers burned. Taking for his stand-point of view the purlieus of one of our remote country villages, the author attempts with good grace the eclaircissement of those vague reverences we see so often springing up in our midst to the neglect of our own individual frailties and home sins, and pictures to us what he deems some of the practical illustrations of our zeal in foreign causes while withholding dew and nourishment from our own home vinyards. It is vigorously written, and though some of the characters have been overwrought, for the sake of sensation, the author exhibits a good deal of talent in his various caricatures, and to say the least, has succeeded in weaving together a very readable and amusing story. As for ourselves, we think we have had full enough books touching these subjects, for we opine that all this sort of teaching is but vanity, for it is a noted fact, that even those of sterling talents are attracted from their even orbit by that strange fascination mind wields over mind; and the staid and doubting stickler for fact is not unfrequently the very first to adopt the absurdest *issue* of the day.

3.—*An Elementary Grammar of the Italian Language*, progressively arranged for the Use of Schools and Colleges. By G. B. Fontana. 12mo., pp. 232. New York: D. Appleton & Co.

HUNT'S

MERCHANTS' MAGAZINE.

Established July, 1839, by Freeman Hunt.

VOLUME XLIII. NOVEMBER, 1860. NUMBER V.

CONTENTS OF NO. V., VOL. XLIII.

ARTICLES.

ART. PAGE

I. REVIEW, HISTORICAL AND CRITICAL, OF THE DIFFERENT SYSTEMS OF SOCIAL PHILOSOPHY; OR, INTRODUCTION TO A MORE COMPREHENSIVE SYSTEM. PART IX. The Political School of Sociology critically considered—The Three Different Classes of that School stated and defined—Macchiavelli, Locke, and Montesquieu critically examined, as Representatives of Three Different Varieties of the First Class—Aristotle and De Tocqueville compared with Montesquieu—Rousseau and Paine brought into review—The American Contribution to Social Science remarked upon—Hamilton, Madison, Jay, Jefferson, and Calhoun briefly noticed, as to their Contributions to Social Science 531

II. PHILADELPHIA—ITS MANUFACTURES. Population—Compared with New York—Advantages of Site—Minerals—Value of Manufactures—Position of State—Accumulation of Capital and Materials—Aggregate of Manufactures—Product per Head—Distribution of Industry—Clothing in Philadelphia—Effect of Panic—State of the Trade in Boston—Textile Manufactures in Philadelphia—Factories—Mode of Manufacture—Woolens—Labor Value of Cottons—Table of Factories—Goods Consigned to Philadelphia—Local Production—Aggregate Market—Iron Trade—Product—Pig Iron—Rolling Mills—Woolens Sold in Philadelphia—Commerce 555

III. VALUATION OF LIFE INSURANCE POLICIES. No. VII. By Prof. C. F. MCCAY, of Georgia 567

IV. CURRENCY OF THE UNITED STATES By CHARLES H. CARROLL, Merchant, Boston 574

JOURNAL OF MERCANTILE LAW.

The Bombardment of Greytown 583
Alleged Fraud on the Revenue 585
The Schuyler Frauds and the New Haven Railroad Stock—Advances on Cotton 586

COMMERCIAL CHRONICLE AND REVIEW.

Progress of Business—Imports—Exports—Domestic Produce—Approximation of Exports to Imports—Effect on Exchanges—Larger Portion of Breadstuffs—Table of Exports—Grain at the West—Milwaukee—Chicago—Railroads—Rise in Values—Absorption of Funds—Capital at Call—Grain for Freights—No Speculation at the West—Money in the Stock Market—Bank Loans—Contraction Comparative—Loans on the Market—Rates of Money—Remittances—Sterling Bills—Rates of Exchange—Current of Specie—Gold Shipments—Specie in the City—Assay-office—Mint 587–595

PAGE

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

Baltimore Liabilities 595
New Orleans United States Branch Mint.—Leather Failures 596
Wealth of New York State 597
City Weekly Bank Returns—Banks of New York, Boston, Philadelphia, New Orleans, Pittsburg, St. Louis, Providence 599
Boston Bank Dividends 603
The Revenue of Cuba 605

STATISTICS OF TRADE AND COMMERCE.

Wine Product of France 606
New York City Trade.—Trade of Cincinnati 607
British Merchant Shipping 611
Milk Trade.—Imports of Hamburg.—Gutta Percha 612
Trade in Breadstuffs of the City of New York 613

NAUTICAL INTELLIGENCE.

Sales of Ships.—The Shipping Interest 614
New York Shipping 615
Naval Change 616

COMMERCIAL REGULATIONS.

River and Freights 616
Imitation Merino Shirts 617
Woolen Hats.—Landscape Plates.—New Tariff of Rates between Chicago and Southern Cities 618

POSTAL DEPARTMENT.

Post-office of the Sandwich Islands—Report of the Postmaster General 619
The British Post-office.—English Post-office Packet Service, 1858-59 620

JOURNAL OF INSURANCE.

Alabama Insurance Law 621
Insurance Scrip Dividends.—Humors of Health Insurance 623
Marine Insurance Scrip 624

JOURNAL OF MINING, MANUFACTURES, AND ART.

The Pennsylvania Rock Oil 625
Galvanizing Iron 626
Cotton Manufacture in Scotland 627
Flax Cotton.—Rhode Island Coal 628
Manchester Operatives.—The Needle 629
The "Last" Manufactory at Richmond.—Smoke from Gas-lights 630
Levels of the Atlantic and Pacific Oceans 630

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

Manufacture of Railway Iron 631
Cotton on Railroads 632
Railways in Texas 633
Southwestern Railroad Company of Georgia 634
New Orleans, Jackson, and Great Northern Railroad.—Prophecy in Regard to Railroads 634
American Railroad Enterprise in Brazil—History of Brazil Roads 635
Railroad Receipts for September 637

STATISTICS OF AGRICULTURE, &c.

Grape Culture on Kelley's Island, Ohio 638
Cotton 640
A California Fruit-Orchard—The Crops in California 643

STATISTICS OF POPULATION, &c.

Population and Growth of Boston 644
Population of Spain.—Population of Milwaukee 645
Population of some Ohio Towns.—Census of Cincinnati.—Census of Rhode Island 646
Business Population of San Francisco.—Census of New Hampshire 647
Statistics of Population of Baltimore County.—Michigan Towns—Population 648

MERCANTILE MISCELLANIES.

New York Central Park 649
The End of Debt 650
Direct Southern Trade with Europe 651
Sailors—What they are, and what they should be 652
Facts and Figures 653
Anecdote of Stephen Girard.—London Tobacco Trade and Consumption 654

THE BOOK TRADE.

Notices of new Books or new Editions 655-656

HUNT'S

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

NOVEMBER, 1860.

Art. I.—REVIEW, HISTORICAL AND CRITICAL, OF THE DIFFERENT SYSTEMS OF SOCIAL PHILOSOPHY:*

OR, INTRODUCTION TO A MORE COMPREHENSIVE SYSTEM.

PART IX.

THE POLITICAL SCHOOL OF SOCIOLOGY CRITICALLY CONSIDERED—THE THREE DIFFERENT CLASSES OF THAT SCHOOL STATED AND DEFINED—MACCHIAVELLI, LOCKE, AND MONTESQUIEU CRITICALLY EXAMINED, AS REPRESENTATIVES OF THREE DIFFERENT VARIETIES OF THE FIRST CLASS—ARISTOTLE AND DE TOCQUEVILLE COMPARED WITH MONTESQUIEU—ROUSSEAU AND PAINE BROUGHT INTO REVIEW—THE AMERICAN CONTRIBUTION TO SOCIAL SCIENCE REMARKED UPON—HAMILTON, MADISON, JAY, JEFFERSON, AND CALHOUN BRIEFLY NOTICED, AS TO THEIR CONTRIBUTIONS TO SOCIAL SCIENCE.

HAVING now concluded our glance at the different races of mankind not belonging to the Caucasian or most superior race, and those nations of the Caucasian race that have flourished before the present age, with a view to extracting whatever noteworthy ideas in Sociology they may have either speculatively entertained or practically illustrated, we come now to the more methodical consideration of sociological ideas and systems, according to the classification of them which we have already laid down, as appertaining to the Political, Politico-Economical, or Malthusian schools; and the course of our review, which has been, hitherto, rambling and disconnected, as a necessary consequence of its endeavor to comprehend, in one survey, and reduce to some historical order, a field, at once so vast and so scantily supplied with material, becomes henceforth more systematical and connected.

All the ideas which have hitherto come under our review, and which have been prominently developed before the present age, may be regarded as belonging to the Political School. For, although, as we have already seen, some ideas may be detected in the discourses of Plato and Aristotle on Politics, which appertain rather to the Politico-Economical and Mal-

* Entered according to an act of Congress, in the year 1859, by GEO. W. & JNO. A. WOOD, in the Clerk's Office of the District Court of the United States, for the southern district of New York.

thusian schools, and some indeed of a still more fundamental character, yet they were not developed with sufficient prominence to form the basis of any particular school or system of Social Philosophy. In the present age, however, not only have these two last-named schools been distinctly and prominently developed, as systems of Social Philosophy, but the theories and projects of the Political School have so multiplied as to render it a work of vast difficulty even to reduce them to a general and methodical classification, so as to admit of their being all *synthetically*, or summarily, considered, and according to their *logical* connections, merely, while treating them in detail, or with reference to the historical order of their development, it would be prepostrous to attempt, and of little utility to accomplish, were it practicable. It is upon the former plan alone that it is intended here to consider these multitudinous ideas in Sociology, although some ideas may be more particularly considered, with a view to illustrating more distinctly the class of ideas to which they appertain. Regard will be had, moreover, to the historical order of their development, so far as can be done, consistently with the more general plan of considering them according to their logical connection.

The historical connection of ideas is, indeed, sometimes so intimately related to their logical connection, as to illustrate it with peculiar distinctness, and to become, thereby, of special and vital interest. Such was the case in respect to the logical and historical connection between the Political and Malthusian schools of Social Philosophy. For the Political School of Social Philosophy culminated in Godwin's Political Justice, by the effect which that work had in stimulating Malthus to inquiry, whose opposing system occasioned its decline, and the Malthusian School took its rise from this occasion. In other words, the fundamental errors of the Political School *cropped out* so manifestly in Godwin's Political Justice, that Malthus clearly discerned them, and was thereby urged into that train of inquiry, which led him to the discovery of those principles which constitute the fundamental ideas of his school. Where the historical connection of ideas is so intimately associated with their logical and vital connections, as in this instance, it would be great neglect to overlook them; nor shall we fail to give clear and distinct prominence to facts so noteworthy and of so much significance in the history of Social Philosophy.

The multitudinous theories or plans for the improvement of the social condition, which may be regarded as belonging, fundamentally and essentially, to the Political School of Sociology, may be all comprehended under the three following classes, to one or other of which they may be all referred:—

I. Those which aim at improving the social condition by simply devising a political system, or organism, capable of performing, in the best possible manner, the legitimate function of government.

II. Those which aim at improving the social condition to a greater extent, and somewhat more fundamentally, than the legitimate function of government can ever improve it, and to an extent which is indeed possible, though not very likely to be attained, and which, as a means of attaining that end, aim at devising a political system which transcends the legitimate function of government.

III. Those which aim at improving the social condition to an extent totally impracticable, and utterly chimerical to calculate on, and which

either propose (as one division of this class do) to use government, or the political authority of the State, as a means for attaining this unattainable end, or, (as another division of the class do,) in their frantic ravings against all government, as the great paramount cause of social grievances, propose a total abolition of all government, prospectively, if not immediately, as an indispensable prerequisite to the realization of their delusive dreams.

In all these three different classes of theories may be detected, more or less distinctly, as their fundamental basis, the idea that the social grievances of mankind are to be attributed, mainly, to political causes, though in some rather negatively than positively, or indirectly rather than directly; and they are all liable to this common criticism, that they fail to discern, or, at least, avowedly to recognize, that there are deeper and more fundamental causes of social suffering than any mere political ones, and which require to be counteracted before any high attainment can be made in the social scale, either individually or nationally. The two first named of these three classes may be regarded as negatively, or indirectly, asserting the idea, though they do not positively assert or avow it, that, *the social grievances of mankind are attributable, mainly, to political causes*, inasmuch as they do not aim at any other expedients for social improvement, than those which appertain to the domain of mere Politics. The third class, in both of its two divisions, as already designated, positively and directly assert this idea, which is the most distinguishing and prominent fundamental idea of the whole class.

These three classes will be considered by us in the order in which they have been designated, in doing which, some of the more noteworthy expositions of the fundamental ideas of these various classes will be incidentally considered, although, as already intimated, with but little regard to the historical order of their development, or any other circumstance than such as may serve to illustrate the logical connection of the ideas. As we are here sketching the history, and critically examining the character, of *ideas*, rather than of *persons*, we shall take note of persons or individuals, and of their peculiar works, only in so far as they may serve to illustrate ideas, according to the plan of considering them which we have adopted. It may very well happen, therefore, that names which merit distinguished consideration for contributions made to Social Philosophy, may be passed lightly over, or omitted altogether, in our review, partly because they have not seemed to the reviewer to illustrate, or to represent, very prominently, any of those fundamental ideas which he is aiming to bring into prominent view, and partly because some may have wholly escaped his observation. For who shall pretend to know all the meritorious laborers who have rendered service in this field of Philosophy, from the time of Solon to the present day? Who shall undertake to recount the names even of all, who, amid the teeming productions of the press, in the present age, have put forth valuable ideas in relation to the philosophy of society, or mere Political Philosophy, in Italy, Germany, France, Britain, and America? It is, in this respect, in the battle-field of science, (if we may so speak,) and in the great battle of life, on its largest scale, as it is in the battle-field of arms. It is only the chief captains, the leaders of division and brigade, who owe their position often to fortuitous circumstances rather than to pure merit, that are particularly noticed, and blazoned before the world, for their meritorious

deeds, while subaltern officers, in reality equally as heroic, nay, whole regiments of heroes, descend into the grave of oblivion, promiscuously encoffined in a parenthesis—thus verifying the sorrowful line of the poet—

"All join the chase, but few the triumph share."*

In entering upon the consideration of the first of these classes, or, *that which aims at improving the social condition simply by devising a political system, or organism, capable of performing, in the best possible manner, the legitimate function of government*, we are met, on the very threshhold of the inquiry, by one of the most profound, difficult, and important practical questions within the whole range of Political Philosophy, nay, in a still wider compass, within the whole range of Social Philosophy. *What is the legitimate function of government, or the political authority of a State?*—for, until this be determined, we cannot decide what particular theories or ideas are to be comprehended in the class to be considered.

This question we might indeed have postponed, nay, pretermitted entirely, in our review, except in a very general and wholly incidental manner. We might have included in our definition of the class to be considered, so much of the definition of the legitimate function of government, as would answer, substantially, for a more particular, though less succinct, and certainly far less accurate and scientific, definition of the class. We might, for example, have defined it as the class which aims at improving the social condition simply by devising a political system capable of securing, most effectually, the rights of person and property. But to this definition of the class, assuming that it embodies, substantially, a correct definition of the legitimate function of government, it is to be objected that the phrase, "securing the rights of person and property," is rather vague and indeterminate, unless qualified and explained. And if, in order to qualify and explain this expression, as to the legitimate function of government, it is necessary to enter upon the consideration of the question in part, we might as well do so in whole.

Without further remark, however, as to the intrinsic propriety of the definition here given, of the class of social philosophers in question, it may be remarked, that it is no material objection to the definition, that it involves the necessity of meeting now, and in advance, this question, as to what is the legitimate function of government. For, in large, as well as in small matters, it is often most advisable, as the vulgar maxim recommends, "to take the bull by the horns."

In the consideration of all questions, however, large or small, we have to encounter, at some point or other, the real difficulty, the essential matter of the inquiry. This may be done either in the beginning, the middle, or the end of the discourse, disquisition, or treatise. In many discourses it is postponed to the end; in others it is encountered in the beginning, and in others again in the middle, or body of the discourse. Which is the most proper course, depends upon many contingencies, reting chiefly to the subject matter of the inquiry, and the occasion of it.

In strictly scientific treatises, and, indeed, in all treatises in which it is practicable, it is generally far better to grapple with the difficulty to be

* Byron in Child Harold.

encountered in the beginning, to state in brief the essential matter which is to be more fully developed and expounded in the body of the treatise. And this is, indeed, the method usually adopted in scientific treatises. For they generally begin with explicit definitions of the principles or facts they are intended to illustrate, which definitions, if rightly given, embody, and, to a very great extent, determine, the whole matter of the disquisition.

Herein may be observed, by the way, the main difference between the analytical and synthetical methods of inquiry, and between the Philosophical and strictly Scientific. By the *analytical* method, which is more particularly the method of Philosophy accurately defined, and in its more restricted sense, as contradistinguished from science, we postpone the real matter of the inquiry, or matter to be ascertained, to the end of the inquiry, and this, indeed, from the necessity of the case; for in this case our object is to ascertain what is as yet unknown. By the *synthetical* method, which is eminently and peculiarly the method of Science, we begin with the essential matter, which has been already ascertained. It is the province of Philosophy to ascertain facts or principles, of Science, to classify and systematize them. This observation is to be understood, however, as relating to Philosophy in its more restricted and peculiar sense; for in its largest sense, and in that sense in which the term "Social Philosophy" is used in this review, Philosophy covers a much more extensive province, and comprehends Science itself. Every science, indeed, may be said to have its philosophy, as every art has its science, and the term "Social Philosophy," as here used, is intended to comprehend those principles of Sociology which have been already reduced to Science, not less than those which are, as yet, in an unsettled state, and undetermined as to their fitness to be received as scientific principles or facts.

In the present disquisition, therefore, which relates, mainly, to principles and facts that may now be regarded as scientifically established, it is often practicable, as it is proposed to do in the remaining parts of this review, to adopt the Synthetical or Scientific method, and to meet in advance the main difficulties and essential matters of the disquisition; and, as already intimated, this is eminently desirable wherever it is practicable.

That a clear and definite idea of the end proposed in any undertaking is eminently conducive to its successful prosecution, is obvious enough. The preliminary ascertainment of this end, in any disquisition—philosophical or otherwise—is what we have referred to, as meeting, in advance, the main difficulties of the disquisition. And this is simply doing what those writers do, who, in the beginning of their discourses, lay down accurate and precise definitions of the objects or ends they are aiming at. If Horace was right in saying, "He who has begun his work has already half finished it,"* with still more propriety may it be said, that he has already half finished his discourse, who, in the beginning of it, has accurately and clearly defined its object. With what disadvantages, for example, must an architect labor, who should undertake to erect a house without any definite plan? Yet such are the disadvantages under

* See Epistles of Horace, book I., Epistle II., line 40.

which they are placed who labor in the incipient stages of any science, with a view to its establishment.

It is not until the fundamental principles of a science have been discovered, and their main applications discerned, that any clear and definite idéas can be had concerning the true plan for seeking to obtain more knowledge, in relation thereto, or even for systematizing that which has been already obtained. In this instance, indeed, we see but one manifestation of a much more general fact, which this serves to illustrate—that, *in all human endeavors, we have to finish our work*, (if it be allowable so to speak,) *before we know, well, how to begin it.* This is true even of the great business of life. It is only towards the close of a long and eventful life, and when a man is about to die, that he learns, and comes to see clearly, how he should have begun it. In like manner, substantially, it is with the sciences, or those at least which are not of the purely exact or mathematical order.

It was only towards the close of a long and brilliant series of experiments and theories in astronomy, for example, that the great controlling principle, of the universality of the laws of gravitation, was discovered by Newton, which served to explain all previously ascertained phenomena, and indicated how efforts should be directed with a view to further astronomical discoveries. Before this time, and even after Copernicus and Kepler had made their valuable contributions to the science, astronomers were very much in the dark, and were striving after astronomical knowledge, for the most part, by a blind process, and without any very definite ideas as to the plan on which their efforts should be conducted. In like manner social philosophers have been, hitherto, for the most part, striving, by a blind process, to arrive at truth in Sociology, and speculating and experimenting on government, without any definite or clear idea of its legitimate function, or of the end which it should propose to itself, in reference to all the manifold functions of the complex system of society.

All the speculations, as well as experiments, of the class of social philosophers now under particular consideration, and indeed of the whole political school, nay, in a still wider range, we may say, the speculations as well as experiments of all social philosophers, hitherto, have been characterized by the want of clear and definite ideas on this point. Could we but ascertain the truth on this point, discover *the real principle* which governs in respect to it, determine this great preliminary question, as to the legitimate function of government, the determination of which is a *preliminary* requisite to a truly scientific consideration of the complex problem of society, but, which, according to the *actual* order of the development of human ideas, and in exact reverse to the *logical* and scientific order of their development, is a *posterior* discovery, and one only to be made towards the conclusion of a long and laborious train of endeavors to establish the science of Sociology, we should obtain a grand result, towards explaining the phenomena of society, and towards simplifying our inquiries in regard to government in general, and the ideas of those political philosophers in particular, whose speculations and experiments are now about to come under our review.

To this great question, then, let us now come, with a becoming distrust of our ability, and of all human ability, to discern and express the precise truth in regard to a question which addresses itself to so many complex,

variable, and thousand-fold relations. Yet, at this age of the world—near the close of the protracted discussion which the question has received, from the time of Solon to the present day—after the elaborate consideration to which it has been subjected, both speculatively and practically, in many different ages and countries—after Grecian philosophy has shed its light upon it, Roman statesmanship has illustrated it, and Anglo-Saxon common sense has practically tested it, in many varied relations—after the searching debates upon it in the Athenian Assembly, the Roman Comitia and Senate, the British Parliament, the American Congress, and the French Revolutionary Convention—it should not appear presumptuous, in an inquirer who has enjoyed the advantages of all these great discussions, and of all former experience, and with whom the Philosophy of Society, in its manifold relations, has long been a cherished theme of inquiry, to suppose that he has discerned, and is able to express, with substantial correctness, the real principle which governs as to the proper function of the political authority of a State, or, in other words, what is the proper and legitimate function of government.

However this may be, the writer of this review can feel little hesitation in asserting, that *the legitimate function of government*, in the largest, most comprehensive, and fundamental sense, *is to let the people alone, itself, and insure their being let alone by others;* in other words, and speaking with more logical accuracy, though with less rhetorial piquancy, *the legitimate function of government is, to insure the people against being interfered with, by the least possible interference with them on its own part;* or yet, in other words, and in order that a proposition of so much importance may be so variously and so explicitly expressed as to preclude, if possible, all possibility of misapprehension in regard to it, *the legitimate function of government is, to insure the largest practicable measure of individual activity, with the least possible exertion of the aggregate force of the community as a controller or modifier of such individual activity.*

The definition here given of the legitimate function of government may be made still more intelligible and explicit by adverting to the definition heretofore incidentally given in our review of "the best government." While reviewing Grecian sociology, and alluding to the constant aim of the social philosophers of that people to attain to "the best government," as to which they had very vague and indefinite ideas, generally, as well as some positively erroneous ones, in particular, we took occasion to define the best government as, *that which insures stability and order in the State with the least possible sacrifice of the individual liberty of the citizen.** Now the legitimate function of government is to do what it appertains to the best government to do, as just defined. And this accords entirely with what we have already said, as to the legitimate function of government; for the very end and object of insuring stability and order in the State is to insure individuals against being molested, or interfered with, to insure their being *let alone.*

It may be readily seen that the definition here given of the legitimate function of government is only a more fundamental, comprehensive, and truly scientific expression of the principle contained in another definition, which might appear more obvious, and would be more readily appreciated by common intelligence, namely, the definition which should assert

* See *Merchants' Magazine* for January, 1860, vol. 42, page 20.

that the legitimate function of government is, *to secure the rights of person and property.* For when a people are completely let alone, when they are in no respect molested or interfered with, of course their rights of person and property are secured.

It may be readily seen, also, that this definition of the legitimate function of government accords entirely with the views of those who make the grand aim of their political speculations and endeavors to secure *the largest amount of liberty* to the citizen, about which so many superficial demagogues prate, and about which so many statesmen and political philosophers have speculated, without clearly perceiving the real efficacy of the liberty principle or the relations of civil liberty to the more fundamental and important principles of sociology.

It should be obvious enough, moreover, that the definition in question is in entire accordance with the cherished *Laissez faire* doctrine of the political economists, who have had the discernment to detect the importance of the great LET ALONE PRINCIPLE, in reference to the interference of government with *production*, without however perceiving its far more comprehensive applications, and its vast scope of relations to the whole science of sociology, just as mankind before the time of Newton were familiar with many of the simple applications of the law of gravitation, and could, by means of it, weigh an apple or a bowlder, but had not yet discovered its applications to the whole solar system, and learned, by means of it, to weigh planets and suns.

It can hardly be necessary to remark that, in the definition here given of the legitimate function of government, reference is had only to its *specific* function in the social system, and without any reference to its *incidental* and less determinate functions. There is not an organ in the animal system that has not its incidental, as well as its specific, function to perform. This is not less true of the various organs of the social system. Government, in the social system, has highly important incidental and indirect influences to exert, as well as specific and direct ones. And social science is far more in want of definite and correct ideas as to what the character of these influences ought to be, or what is the legitimate incidental function of government, than it is as to its legitimate specific function, which we have here designated, and perhaps properly enough, as simply and purely its legitimate function. As to this incidental and indirect function of government, however, it is not intended here to speak. It is not forced upon our consideration, at this time, as the specific and immediate function of government has been, incidentally, and we shall not mar the logical harmony of our review by unnecessarily introducing it.

The definition which has been here given of the legitimate function of government suggests, readily enough, to a little reflection, its qualifications, which are numerous and important. For while the great desideratum in sociology, for the specific purpose of insuring which governments are established among men, is that men may be *let alone*, yet it should be obvious enough that in order that men may be let alone, they must be, to some extent, *interfered with.* In order that mankind may not be otherwise and more seriously interfered with or molested, they must be, to some extent, interfered with, molested, or restrained by government. How far, under all the various conditions in which mankind may be placed, in the social state, this restraint, or interference, on the part of government, ought to extend, is the real difficulty, and the great

practical question which addresses itself to the social philosopher, in the political department of social science. No specific rule, applicable to all cases, can be laid down in respect to the applications of this restraining principle, when the range of variation, in its applicability, is so vast. So great indeed is this range of variation, that while there may be conditions of society in which the restraining influence of government might be totally dispensed with, and society left entirely to the operations of the law of nature, there are others, again, in which the restraints of nothing less than absolute political despotism would be indispensable, in order to maintain stability and order, and protect society against a far worse sort of interference than that of absolute despotism, that of widespread anarchy and barbarism. Yet in these instances of the greatest allowable restraints on the liberty of the citizen, the logical consistency of the principle of *non-interference* is maintained; for the very reason, if rightly applied, that the citizen is so rigidly interfered with by government, is that a worse interference with his interests may be prevented. The interference of despotic government is preferable to that of anarchy, and it may become necessary, (to use the idea of Macaulay, before cited by us,*) to sacrifice even liberty, in order to save civilization. In short, the great principle, rightly understood and applied, underlying all political interference with the liberty of the citizen, is *that the citizen may be, as far as possible, freed from all interference.* And the grand aim of all political authority—the grand aim of social philosophy—should be, to widen the sphere of individual activity as far as, under all the circumstances, is allowable—nay, to actualize the grand result, towards which all real human improvement tends, and after which mankind, in all ages, have been unconciously yearning and striving—the result which a late writer has designated as "the last great triumph, the signal for the complete inauguration of God's kingdom on earth—the triumph of the individual over society."†

Having now submitted a definition of the legitimate function of government, which, it is believed, will stand the test of scientific criticism, on the score of clearness and precision, as well as of accuracy, it may be proper to remark that those whose theories in sociology we have characterized *as aiming to improve the social condition, by simply devising a political organism capable of performing in the best possible manner the legitimate function of government*, have not possessed, by any means, such clear and definite ideas in relation thereto, however substantially accurate may have been those ideas. And this constrains us to remark that it is not only not necessary that men, in order that they should have substantially correct ideas in relation to any subject, should have clear and definite ideas, but that it is not necessary, in order that their *aims* should be just, that their *ideas* in relation thereto should be. Men, not less than the lower animals, are urged by *instincts*, which often impel them in the right direction long before their rational faculties are sufficiently developed to indicate the correctness of that direction, or discern the grounds of its propriety. In short, as language precedes grammar, art, science, and instinct, reason, in the natural order of development, so the practical recognition of principles often and generally precedes their theoretical and rational recognition.

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* See No. II. of this Review, in *Merchants Magazine* for November, 1859.

† See Henry James, on Moralism and Christianity, page 154.

Accordingly we shall find that a multitude of theorists and experimenters in social philosophy have aimed at actualizing the legitimate function of government, when they theoretically entertained very vague and indefinite, nay, very crude and imperfect, if not positively erroneous, ideas in relation thereto. We shall find them striving by a blind process—by a sort of blind instinct—after the legitimate function of government. We shall find them, for example, striving after *liberty*, the liberty of the citizen, and the rights of the citizen, without once suspecting, apparently, that, in so doing, they were striving to attain the grand desideratum—the legitimate function of government—and without discerning the *principle* upon which the liberty of the citizen is really useful, and upon which it tends to the really important end—the improvement of the social condition, the actual well being of mankind. And, in this, we shall, at the same time, discern the great superiority of the rational recognition of principles to the mere *instinctive* aspiration to attain them. For we shall find these inquirers striving after liberty, as an *end*, as the *summum bonum* of all social aspiration, and one to be sought for without regard to circumstances, whereas had they possessed the rational recognition of the principles involved, had they comprehended the true principles of sociology, they would have discovered that liberty is to be desired rather as a *means* to an end, to the end of the actual well being of mankind, and that it depends on circumstances how much liberty ought to be enjoyed by individuals in the social state—*that it depends on how much they can use without abusing.*

After this somewhat elaborate preliminary disquisition on the definition of the class to be considered, it is time that we should come to the consideration of the class itself. To this class may be referred, in a practical or experimental point of view, nearly all the political systems of the present day, which, unlike those of antiquity, have confined their aims, mainly and substantially, to the legitimate function of government, however much they may have deviated from the principle in their practical application of it; and most prominently among these systems may be particularly noticed the great model governments of the present age, those of Britain and America, which are the great practical embodiments of the political wisdom of the age, though certainly not complete embodiments of that wisdom, since there are many valuable ideas, familiar to political philosophers of the present day, which have not as yet found adequate expression, if any at all, in either of these justly renowned systems of government.

To this class may also be referred, in a theoretical or speculative point of view, much the greater number of the political treatises or disquisitions on government, of any eminent merit, that have appeared in the present age. For we shall find ideas of this class, which are more correct, so far as they go, than those of the second class, much more prevalent in this than in earlier times. For while in this age error does much more abound, or rather appear in much larger forms, than in former ages, so also does truth, which is in accordance with the general law, *the higher the development, the greater the adaptability to both good and evil.*

Among the multitudinous disquisitions on government which have appeared in the present age, those which are, perhaps, most entitled to particular consideration, whether by reason of their intrinsic merit, or the

influence which they have exerted in directing or modifying general opinion, or partly both, are Macchiavelli's discourse, entitled "The Prince," Locke's essay on "Civil Government," and Montesquieu's disquisition on the "Spirit of Laws"—the first the outcome of Italian, the second of Anglo-Saxon, and the third of French intellect, and the first being the product of the 16th, the second of the 17th, and the third of the 18th century. These three notable works are the more entitled to particular consideration, because they may be regarded as the great representative expressions of three prominent varieties of the class of social philosophers now passing under our review.

Macchiavelli's discourse, entitled *Il Principe*, or The Prince, written in 1514, (as is generally supposed,) though not published until 1532, five years after his death, and addressed to Lorenzo de Medici, the reigning prince of his country, (Florence,) may be regarded as a masterly exposition of the principles upon which the political authority of a State ought to be administered, with a view to realizing the ideas of those who regard the great majority of mankind as the rightful subjects, the mere property, of a few divinely favored mortals, specially commissioned and annointed to rule with undisputable sway over their fellow mortals, and who consider the interests of mankind at large as worthy of no more consideration than is strictly consistent with the wishes and interest of those peculiarly favored mortals. It is a legitimate expression of the views of those who advocate the *jure divine* right of kings to rule supremely in human affairs—a race of thinkers, it is to be presumed, now nearly extinct, and of whom the renowned diplomat, Metternich of Austria, may be regarded as one of the most distinguished lingering remnants in the 19th century.

It may appear to be with very questionable propriety that we class such a work, as this of Macchiavelli, with *those which aim at improving the social condition by simply devising a political organism capable of performing, in the best possible manner, the legitimate function of government*, especially after we have defined that function to be—to secure the community against molestation or interference. But this classification will appear defensible when it is considered that the words of our definition, "by simply devising," etc., imply what would be more clearly expressed by the words, "by nothing more than simply devising," etc. For it is very obvious that the aim of Macchiavelli's work in question is *nothing more* than simply to devise a system of government, or administration, which should perform the legitimate function of government, since it is obviously *a great deal less*. In one sense, indeed, the aim of the work in question comes precisely within the scope of our definition; for that aim is obviously to secure the only individual in the State, whom Macchiavelli regarded as having any undoubted rights, the Prince, against *molestation or interference*, and the rest of the community, just so far as that may comport with the special interests of the Prince.

Regarded from the very low stand-point from which Macchiavelli regarded human society in this work, not so much, assuredly from the real convictions of his own mind, as from a desire to obtain the favor of "the Prince," to whom it was addressed,* the work must be regarded as one

* It is abundantly evident from the dedication of the work in question, from the general scope of Macchiavelli's views, as expressed in other works of his, and still more explicitly, from posthumous letters written by him, that this celebrated work, *Il Principe*, was written by Macchiavelli almost purely with the view of obtaining preferment from the reigning prince of Florence.

of great ability, and abounding in sagacious observations. If, indeed, mankind in general, or any integral part of mankind, stand so low in the social scale, or the scale of humanity, as to be fit only to be the abject slaves of an imperious master, then the principles inculcated in Macchiavelli's Prince, however detestable in themselves, as they have been commonly regarded, are of important practical applications. Principles are to be estimated by their applicability to the ends which it is sought to attain by means of them; and governments being the outgrowths of society, if human society is anywhere so corrupt as to yield an absolute despotism, as the best kind of government it is capable of sustaining, then the principles inculcated by Macchiavelli, in "the Prince," are of unquestionable value, for they are the principles that are best adapted, in the main, to the ends of despotic government. Regarded even in this view, however, the work in question is deserving of severe criticism, as being predicated upon altogether too low an estimate of human character, as recommending too prominently an appeal to the fears, rather than the nobler impulses of mankind, and as paying too little regard to the reflection that MAN'S HIGHEST INTEREST IS HIS DUTY, which, if duly considered by princes, would incline them to far nobler principles of actions, wherever circumstances would justify, than Macchiavelli has inculcated. Still, if it be doubted by any that Macchiavelli has administered much wholesome counsel to princes, in the celebrated and much denounced work in question, let them examine the twenty-third chapter of the work, that entitled "How flatterers are to be avoided," in particular, and the body of the work in general.*

Locke's essay on Civil Government, first published in 1690, in two books, the first entitled "Of Government," simply, and the second, "Of Civil Government," written in reply to Sir Robert Filmer, one of the most strenuous advocates of absolute monarchy, and in vindication of the principles of the English Revolution of 1688, may be regarded as a prominent embodiment of the principles of that revolution, as well as of the American Revolution of 1776, into which they were subsequently developed, and as the great representative work, if not the parent work, of a more extensive class of political disquisitions and speculations than has appeared in this or any age.

The principles of Locke's essay on government are diametrically opposed, in most respects, to those of Macchiavelli's "Prince," or are developed from a diametrically opposite stand-point. While Macchiavelli regarded *princes*, alone, as having any rights, and as the only rightful source of political authority, Locke regarded *peoples*, the great body of mankind, as alone having any rights worthy of special regard, and as the true and only rightful sources of political authority. Locke was the great exponent of the principles of republicanism, as Macchiavelli was the obsequious and servile exponent of the principles of despotism. In Locke on government we find all the fundamental ideas as to the rights of man and the true foundations of the political power of States that loom out

* It is due to Macchiavelli, and the truth of history, to mention that his disquisition, entitled "The Prince," is not by any means his most creditable work, even of a more purely political character, to say nothing of his valuable historical compositions. His "Discourse on the First Decade of Titus Livius," or a philosophical disquisition on Roman history, is a far abler, more comprehensive, and more valuable work, and abounds in observations that are replete with sagacity, and prove its author to have been one of the master minds of his age and race. Yet even in this work it appears manifest that Macchiavelli took a very unfavorable view of human nature, and held mankind in rather low estimation.

so conspicuously in the American Declaration of Independence, and which form the staple of such a multitude of political disquisitions and declamations, both oral and written, in the present age. In Locke we find the great idea, that "all men are by nature free and equal," distinctly set forth, and in bold opposition to the contemptible postulate of Sir Robert Filmer, in his "Patriarcha," that all men are by nature the rightful subjects and slaves of an individual named Adam, and his legal representatives, with the exception, of course, of the said Adam, and his said legal representatives, (either as *heirs, executors, administrators, or assigns,*) who are, unlike the rest of mankind, by nature, lords and masters over all the rest.

The most noteworthy fact, perhaps, concerning Locke's disquisition on government, the more especially as the fact constitutes a characteristic feature of a multitude of political disquisitions, of which Locke's may be regarded as the great representative work, is, that it is predicated almost entirely upon the inquiry, *what are the rights of mankind, in respect to government, or political authority*, without any regard to the far more practical and really important question, *what is expedient for mankind in respect to government—what government is most conducive to the public good*, or, *what government is best calculated to realize the legitimate ends of government.* This great practical question of expediency, policy, or real wisdom, in respect to government, Locke does not deign to consider, or, if at all, only in the most casual and indifferent manner. His grand, if not exclusive, aim seems to have been to develop, with logical precision, the abstract principles of *right*, in regard to the authority of governments over mankind, which he found to be based upon the natural liberty and equality of all men, from whose consent alone governments could derive their legitimate force.

It is remarkable that nearly all the political disquisitions of the republican school, or sub-school, in politics, from the time of Locke down to the period of the American Revolution, or rather down to the period of the inauguration of the present American system of government, have, like that of Locke, had this for their almost exclusive aim—*to vindicate the right of mankind to free government*, as it is called, or, more properly, to republican government, with little or no regard for the great paramount, practical question, *how far are such governments really conducive to the public good.* Since the latter period, however, this last-named question has entered largely into the discussions which have been carried on in regard to government. The general observation just made applies, not only to Milton's political writings, which preceded those of Locke, but to Rousseau's "Social Contract" which succeeded it, and Paine's "Rights of Man," and a multitude of other disquisitions.

This fact illustrates, forcibly, the observation already made by us,* that a multitude of inquirers in social philosophy have been striving, by a blind process, by their mere instinctive aspiration after the right of liberty, to attain to one of the grand desideratums in sociology, the actualization of the legitimate function of government, which, as we have already shown, is *to insure mankind against interference*, or, in other words, to insure them, as far as possible and expedient, unrestrained and undisturbed *freedom.* Nor can it be hardly necessary to repeat here what has been already substantially said,† that these inquirers would

* See page 540 of this article.

† See same page.

have made much more progress towards really important discoveries in sociology, if, instead of wasting their strength upon the abstract question of the right to freedom and free government, they had directed their inquiries, immediately, to the great practical question, *what government is, under all the existing circumstances of any given society, most conducive to the public good*, in considering which they would have been likely to discover all that is really *useful* in the principle of liberty, the *right* to which should be too obvious to need discussion.

The prominent introduction of this *idea of right* into the discussions of mankind, especially in regard to political and social affairs, as we have before remarked,* is a distinguishing feature of the present age, being only faintly discernible in the discussions of former ages. It is to be regretted that, on being thus introduced, it should have received, hitherto, altogether too prominent consideration. The immediate occasion of the introduction of this idea appears to have been the angry controversy which arose in England, about the middle of the 17th century, between the upholders of King Charles I., in his arrogant pretensions to absolute authority, commonly styled the Cavaliers, and the opponents of those pretensions, styled the Puritans. The controversy partaking of a religious, as well as political, character, appeal was made to the sacred scriptures of Christendom, the defenders of King Charles and the *jure divine* right of kings leading the way in this appeal.

It was unfortunate for these defenders of the divine right of kings, that they appealed to the sacred scriptures. Those justly revered records would be unworthy of the high esteem in which they are deservedly held by so large a portion of the human family, if they countenanced the abominable doctrine claimed for kings, that they are above law, and that mankind at large are their bounden slaves. The Puritans turned upon these perverters of Holy Writ with their own authority, and completely overwhelmed them. It is amusing, as well as instructive, to see how that noble-minded old puritan, John Milton, who is scarcely less entitled to commendation for his political than his poetical writings, in his masterly "Defense of the people of England," against the contemptible sophistry of an anonymous scribbler under the name of "Salmasius," turns their own weapons against these defenders of the *divine* right of kings, and shows that the authority of the Christian Bible is everywhere, (if rightly interpreted,) on the side of the substantial equality of mankind, and totally opposed to the idea that kings, any more than other men, have any rightful authority, except so far as they act rightly, and respect the laws of their country and the rights of their people. This affiliation of the idea of right in politics with the sentiment of religion, or the idea of political right with that of religious right, has undoubtedly caused the idea to penetrate more deeply into the human mind in this than in any former age, and has contributed materially to encumber modern inquiries in Sociology, so unnecessarily, with this comparatively profitless question in social science, *what are the rights of mankind*, in respect to government, or the political authority of States, a question, at best, of rather equivocal claims to particular consideration in Sociology, which is concerned rather with *expediences* than with *rights*, which latter appertain to the domain of ethics—to which indeed Sociology should ever be

* See No. viii. of this Review, in September No. of *Merchants' Magazine* for 1860, vol. 43, page 298.

subordinated, since *rights* should never be violated, or trampled on, from *expediency*, though they may rightly be, and in many cases ought to be, voluntarily surrendered, or compromised, from *expediency*.

In Locke's essay on Government, we also find prominently set forth the idea so prevalent in the present age, *of the right of the majority to rule*, which, to superficial observation, may appear to be a logical sequence of the idea that governments derive their legitimate force only from the consent of the governed. It may be worth while here to remark that this idea of Locke's is a grand fallacy, and a pernicious heresy, in Politics as well as in Ethics. Intrinsically the majority have no more right to rule the minority than the minority to rule the majority, except in those matters as to which it is unavoidable that the wishes either of the majority or minority must be sacrificed to the general welfare, and even then only as to what Blackstone has properly enough termed *mala prohibita*, or things that are only wrong because they are conventionally prohibited.* As to things *mala in se*, or intrinsically wrong, if anything may be strictly so regarded, and in so far as anything may be properly so regarded, it is indisputable that the majority have no more right to rule the minority than the minority have to rule the majority. Intrinsically, *truth*, or *the right*, has a right to rule, and, by consequence, whosoever advocates truth, or the right, whether they be the majority, or, as is much more frequently the case, the minority—nay, the minority of only one against an erring world. But, as a matter of policy, or expediency, it may be well to recognize the will of the majority, as the criterion of right, according to the plan which has been commonly pursued in republican governments, in which case the rule of the majority is only a *conventional* right, and not an absolute one. A powerful reaction has already begun even in the republican sub-school, or *division*, (if we may so speak,) of the Political School of Social Philosophy, against this presumptuous claim of an absolute right to rule on the part of the majority, of which reaction the recent able "Disquisition on Government," by the eminent American statesman, Calhoun, may be regarded as a distinguished exposition.

It may be proper, furthermore, to remark, before taking leave of Locke, that he belonged essentially to the *conservative* party of the Republican School, or rather of the Republican division of the Political School, in Sociology, and that his essay on government is to be regarded as a prominent exposition of the views of that party, while Rousseau's Social Contract (of which we shall have more to say presently) may be regarded as the most prominent exposition, if not the parent, of the *radical* party. In a general sense, it may be said, that the principles of free government, as maintained by Locke, are externally illustrated by the government of Britain, while, as maintained by Rousseau, they are somewhat more nearly illustrated by that of America. In a more particular sense, it may

* The right of the majority to rule as to *mala prohibita*, or things to be deemed wrong, merely because they are conventionally prohibited, may be illustrated by the case of nine persons traveling in the same coach, three of whom wish the windows of the coach shut, and the other six of whom wish them open. In this case, *all other things being equal*, it should be obvious that the will of the six ought rightfully to prevail over that of the three. Yet even here the right of the majority to rule, may, under circumstances that might very well exist, be very questionable. For suppose the health of the three, or even of only one of the nine, to be so delicate that the opening of the windows would seriously jeopard his life, while all the rest were in robust health. Would it not be generally conceded that even in this case, the will of the one should prevail against that of the eight?

be said, that the republican principles of Locke and the English people are represented in the American republic by Alexander Hamilton and his followers, while those of Rousseau and the French people are represented by Thomas Jefferson and his followers.

Montesquieu's disquisition on the "Spirit of Laws," first published in 1748, may not only be regarded as by far the most masterly work ever produced by the class of social philosophers now under particular consideration, but as one of the most valuable contributions to social science that has appeared in any age or country. This justly renowned work is scarcely less remarkable for the accuracy than for the vast range of its observations. Montesquieu's Spirit of Laws, in fact, compares with Locke's Essay on Government, as Shakspeare compares with Cowper's Task, or, we might almost say, with Gray's Church-yard Elegy, while Macchiavelli's Prince holds, of course, even a still lower place in the comparison. Locke, like Macchiavelli, harped only on one string, though one of far higher and more commanding notes than that of Macchiavelli. Montesquieu struck an instrument of a thousand strings. Macchiavelli, in his "Prince," aimed only at showing how the interests of Princes are to be most effectually secured; Locke, in his "Essay on Government," at showing, merely, that Peoples, or the great body of mankind, have the right to establish what kind of government they please, and seek the promotion of their own interests in their own way; while Montesquieu, in his "Spirit of Laws," aimed rather at showing by what laws the rights and interests both of Princes and Peoples are to be secured, under the various circumstances and contingencies by which they may be surrounded. Macchiavelli regarded human society only in reference to the interests of Princes; Locke only in reference to the *rights* of the People, with but little regard for the more important question as to the *interests* of the people; while Montesquieu regarded it in reference to the thousand-fold relations which it may bear, not only to laws of human enactment, but to the more fundamental laws of nature.

It is this latter feature in Montesquieu's celebrated work in question—its prominent regard for the more fundamental laws of nature in their influence on human society—which, more than any other, *except the vast scope of its observations*, distinguishes it above almost every other work of its class, and entitles it to so prominent a place in the science of Sociology. It is this feature in Montesquieu which has extorted commendation, even from the egotistical Comte, in his work on the Positive Philosophy, and which he has regarded as containing the elements of *positivity*,* or *necessary law*, which he, justly enough, regards as the only fit basis for science.

The "Spirit of Laws," in fact, possesses many characteristics which cause it to stand out in bold relief from the multitude of works of its class, and almost entitle it to be regarded, if not strictly and exclusively *sui generis*, as belonging to a select class, very different, in many essential particulars, from that under consideration, or indeed from any of the Political School.

In fact, three notable works, the products of different ages, loom up amid the crowd of disquisitions on government, in different ages and countries, distinguishable from the rest by their many sidedness and large

* See Comte's Positive Philosophy, book vi., chap. 2, as translated by Miss Martineau.

scope of observation, which bear a near resemblance to each other in many important particulars, and all of which contain the germs of a higher order of Social Philosophy than that which appertains to the Political School, but which yet deserve, in the main, to be classed with the productions of that School. These are Aristotle's Politics, Montesquieu's Spirit of Laws, and De Tocqueville's Democracy in America. These three kindred works serve, moreover, by the different points of time at which they respectively appeared, to mark, in a signal manner, the gradual, though slow and tedious, progress of the human mind towards more correct ideas in Sociology. Montesquieu's work is far superior to that of Aristotle, and De Tocquevillie's decidedly, though not to so great an extent, superior to that of Montesquieu. The work of Montesquieu belongs to the *first* class, or decidedly least fundamentally erroneous class of the Political School, while that of Aristotle belongs, as we shall presently more distinctly show, to the *second*, or more erroneous class. The work of De Tocqueville may indeed be regarded, like that of Montesquieu, as belonging to the first class of the Political School, inasmuch as it ostensibly and avowedly, though rather *ostensibly* than really, dwells with much emphasis upon political laws, and the framework of government, yet it rises, on many points, so far above the vulgar errors of this school, as to lift itself almost completely out of its jurisdiction, and into the position of those, for whom we have not as yet invented any generic name in our review, who regard political causes as only of *secondary*, or rather, indeed, of *tertiary* importance, in social science, and who consider that government is, at best, but the *roofing* of the social edifice, designed more effectually to keep the various parts together, and to protect the more fundamental and interior portions of the edifice from the *weather*.

In one important and obvious respect the work of De Tocqueville differs from both that of Aristotle and Montesquieu—in its plan, or method, or rather in the stand point from which the ideas are developed. The plan of both Aristotle and Montesquieu is *synthetical;* that of De Tocqueville *analytical*. Aristotle, in his Politics, and Montesquieu, in his Spirit of Laws, both put prominently forward their essential ideas, and gather around these their rich and varied stores of illustration, drawn promiscuously and indifferently from all ages and countries, very much after the same plan which we are now pursuing in this, the more peculiarly CRITICAL portion of our review. De Tocqueville, in his Democracy in America, on the contrary, and very much after the plan which we have pursued in the more peculiarly HISTORICAL portion of our review, as when reviewing Grecian and Roman Sociology, seized upon the more prominent features of the American system of government, and in dissecting and analyzing these developed his own valuable and great ideas. The plan of Aristotle and Montesquieu was certainly more imposing, and, moreover, better adapted to the purposes of science; that of De Tocqueville, if more unpretending, was nevertheless executed with far more ability. Aristotle and Montesquieu preached from a far broader and more comprehensive text; but De Tocqueville produced a discourse in comparison with which those of both Aristotle and Montesquieu dwindle into rather small proportions.

One common fact or feature is observable in all those three valuable contributions to social science—the more remarkable by far in Montesquieu, because he wrote at a time when, as we have already remarked,

all political speculation was almost completely engrossed with the question of *right*—that they address themselves almost exclusively to the real and practical question of *expediency* in human affairs, without wasting their strength at all upon the comparatively profitless, yet palpably obvious, question of the "rights of man."

The defects of Aristotle's work, as well as its merits, have been already dwelt upon by us in reviewing Grecian Sociology,* and will again come into brief notice in reviewing the second class of the Political School. The defects of De Tocqueville's work are too trivial to merit attention. It stands above criticism, unless, indeed, the sun is to be criticised for his spots, or some majestic edifice for the few cracks discernible in its walls. The defects of Montesquieu's work, after the sweeping commendation we have bestowed upon it, will be now briefly and in part alluded to.

The most prominent and comprehensive criticism to which Montesquieu's Spirit of Laws is liable, (in respect to its defects,) is perhaps this, that it does not direct its inquiries to the most fundamentally or essentially important ends, nor, in fact, to the true ends of social science, speaking in the largest sense, nor of political science, speaking in a smaller sense. It displays, in short, a manifest lack of discernment as to the real and essential matters which should most prominently engage the attention of the social philosopher—a fact which indicates, if not the infancy of social science, at least a condition not yet developed into the gristle and bone of manhood. For this is one of the most distinguishing symptoms of the manhood of a science, if we may so speak, that it exhibits clear and distinct, as well as just, ideas as to its proper ends. As he has half finished his work who has begun it, and as a physician may be said to have half conquered the disease when he has clearly and distinctly discerned its real nature, so a science may be said to have half accomplished its ends when it has once attained to clear and just ideas as to what those ends are. Very obviously, Montesquieu had not attained to clear and just ideas of the proper ends of social science, nor even of mere political science. Like Aristotle of old, he aimed his inquiries at many different objects, but never once at the right ones, or most essentially important ones—at those objects, in short, without which those he aimed at would be, in a great measure, nugatory, and which, being attained, the others would be attained as a natural consequence.

Montesquieu's Spirit of Laws, though not a very voluminous work, is divided into thirty-one different books, which treat of laws in their relations to nearly as many different ends, and yet not one of them treats of laws in their relations to the great paramount end of social science—*the actual well being of mankind;* nor in their relations to the great paramount end of mere political science—*the security of mankind against interference.* Like Aristotle, though not to so great an extent, we find him wasting his strength on vague abstractions, and in inquiries as to what laws are most consistent with this or that form of government, instead of directing his inquiries immediately, and in a plain, straightforward manner, to the essential question—What laws are, under the various circumstances in which mankind may be placed, most conducive to the general good, and the actual well being of men.

In short, the same great cardinal and fundamental error is discernible

* See No. iv. of this review, in January number of vol. xlii. of *Merchants' Magazine.*

in Montesquieu, as a sociologist, that we have before pointed out in Aristotle,* *that he subordinates the individual to the State*, or the reality to the mere abstraction, instead of subordinating the State to the individual, or the abstraction to the reality.

Accordingly we find him, in the fourth book of his disquisition, maintaining, and this is the caption of the book, "That the laws of education ought to be relative to the principles of the government"—as if the maintenance of a certain kind of government were a matter of *prime* importance. We beg pardon! This proposition of the renowned and time-honored Montesquieu may be true, and doubtless is, so far as it is of any real importance; but we respectfully submit that it is far more important *that the laws of education should be relative to the great practical end of rendering every individual in the society to which he belongs capable of taking care of himself, with a just regard for the rights of his neighbor*, which, being effected, then it must follow, as the day the night, or the shadow the substance, that the society will be taken care of, and all that is really important as to "the principles of government" would follow, as naturally as moonlight flows from the sun; for what is government but the *reflection* of the character of society? But these must suffice for our remarks on Montesquieu and his justly-renowned "Spirit of Laws."

The political disquisitions of which Macchiavelli's Prince is the representative are, in the main, too insignificant to merit further notice than we have already bestowed upon them; those of which Montesquieu's Spirit of Laws is the representative are too few in number to demand further consideration here; but those of which Locke's Essay on Government is the representative are so numerous and important as to demand of us some further and special attention.

Next in point of time, as well as in the order of logical development, after Locke's Essay on Government, Rousseau's Social Contract, which first appeared in 1762, claims some special notice. This production may be regarded as an *elongation* of the principles of Locke's Essay on Government, or, we might say, that it is a *graft* from the French *nursery*,† upon the gnarled and knotted oak of Anglo-Saxon republicanism, as manifested in that essay. This disquisition of Rousseau's, not less than that of Locke, illustrates the observation before made that the political disquisitions of the present age are characterized, in a high degree, by their almost exclusive devotion to the *idea of right*. This is conspicuous in the very first two sentences of the work in question, and still more in the subsequent portions of it. "My design, in the present treatise," says Rousseau, in the commencement of his Social Contract, "is to inquire whether the nature of society admits of any fixed and equitable rules of government, supposing mankind to be such as they are, and their laws such as they might be made. In this investigation, I shall endeavor constantly to join the considerations of natural right and public interest, so that justice and utility may never be disunited."‡ Assuredly the design of Rousseau, as thus stated by him, constitutes an admirable thesis

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* See No. iv. of this review, in January number, or vol. xlii. of *Merchants' Magazine*.

† Rousseau, though a native of Geneva, in Switzerland, was to all intents and purposes a Frenchman. His sympathies, associations, affinities, and traits were French, and he spoke and wrote in French.

‡ See Social Contract, book i., p. 1.

for a political disquisition. But unfortunately he only half treated it, and that, too, not by any means in the best manner. He treated almost exclusively of the *rights* of mankind, in the social state, with little or no regard for the matter of their *interests.*

Rousseau's disquisition on the Social Contract contains many valuable ideas, intermingled with many fallacious ones, but upon the whole is a work of but little merit, and may be fundamentally characterized as an overstrained effort to attain impracticable ends, or to develop ideas that can never have any other than an abstract or ideal existence in human affairs. The fundamental and controlling idea of the work, so far, indeed, as it is possible to detect an idea, so much involved in obscurity, in senseless, hair-splitting refinements, and in distinctions of no earthly utility, appears to be this wild and impracticable one, *that every individual in society should be perfectly free to do as he pleases, but at the same time be constrained and coerced by the general will of the society—whether it coincides with his particular will or not*—that, forsooth, *there should be a "total alienation of every individual, with all his rights and privileges, to the whole community," and, at the same time, a perfect freedom on the part of every individual**—*that, in short, every individual shall be compelled to be free, by being completely subjected to the domination of the general will of the community, even when he wishes to act in a different manner from that prescribed by the general will.*† In reasoning out this preposterous and absurd fundamental proposition, Rousseau is led to maintain the infallibility of the general will, a doctrine which has been fraught with vast mischief to the world, despite the qualifications which he has thrown around it, as by asserting that the judgments of the people may err, though their general will can never be wrong.‡

Rousseau's Social Contract more completely and unqualifiedly than Locke's Essay on Government asserts the sovereignty of the people, in matters of government, and it asserts, moreover, the *inalienability* as well as the *infallibility* of the popular sovereignty. This latter idea is in fact the most pernicious one in the whole work. It may be regarded as the counterpart of the preposterous and pernicious idea of the advocates of the *jure divine* right of kings, that "kings can do no wrong." It is the assertion of the idea that *the people can do no wrong.* This *deification* of the popular will has exerted baneful influences in human affairs discernible in many of the frantic excesses of the French revolution, and in some of the extravagancies of the great American republic.

One marked redeeming feature, however, the "Social Contract" possesses, as an offset to these deformities, and, in some measure, as a natural and logical result of them. In his overdrawn zeal for the rights of individuals, Rousseau was led, in spite of his deification of the "general will," to challenge the unqualified right of the majority to rule the minority. Some of his remarks on this head are highly valuable, and worthy of a sounder head than his. Most justly does he remark, "that the more grave and important the deliberations, the nearer ought the determination to approach to unanimity," and, "that the more expedition the affair requires, the less should unanimity be insisted on."§

* See Social Contract, book i., chap. 6.

† See Social Contract, book i., chap. 7. We do not give the words but the substance of Rousseau in these remarks, except where the quotation marks indicate the precise words of the author under consideration.

‡ See Social Contract, book ii., chap. 3.

§ See Social Contract, book iv., chap. 2.

Paine's celebrated disquisition on "The Rights of Man," written ostensibly in reply to Burke's "Reflections on the French Revolution," and first published in 1790, just a century after Locke's Essay on Government, is another, and perhaps the last notable work on government that has appeared, which is almost exclusively devoted to the idea of *right* in politics. The whole burden of its song is, that mankind have the right of self-government, with only very feint, if any, allusions to the question, whether, and how far such government is conducive to the public good and general welfare of mankind.* The work has more perspicuity and directness than that of Rousseau, and is a far more masterly vindication of the "Rights of Man." But, like all of Paine's works, it lacks comprehensiveness, largeness of view, and common sense. It is carried away with *the principle*, without due regard to its *limitations*. This was indeed a leading trait in Paine. His highly gifted genius was sadly lacking in discretion, which is the better part of wisdom, as it is of valor. Like many others, he could not use principles without abusing them.

Regarded as the last notable work of that variety, of which Locke's Essay on Government may be regarded as the complete representative, Paine's discourse on the Rights of Man may well afford occasion for serious reflection on the misapplication of the faculties of mankind, in their strivings after knowledge and self-improvement. We here see many of the most gifted intellects, during the period of a whole century, devoting their attention to the great problem of human society, solely in reference to the influence of government or political causes, and in considering this influence, we see them wasting their strength, during the whole century, in efforts merely to prove, the almost self-evident proposition, *that mankind have the right of self government*, with scarcely one word in relation to the really important and difficult question, whether and how far is such government conducive to the good of mankind.

With the inauguration of the American republic, as an independent power in the world, however, which took place in 1789, just one year before the publication of the "Rights of Man," or rather with the great public discussions which immediately preceded that important event, this question came into prominent consideration, and has continued ever since to engage, to a large extent, the attention of political inquirers. For although the political philosophers of America belong, essentially and substantially, to the Locke school, or rather *sub-school*, in Sociology, yet their disquisitions are a vast improvement on that of Locke. Not content with maintaining, like him, that mankind have the right of self-government, nay, scarcely deigning to discuss a proposition so obvious, but taking it for granted rather, they march up directly to the really important proposition, that such government is most conducive to the public good and general welfare of mankind. Instead of wasting their strength on the abstract and ideal question of right, they direct their energies to the great, tangible, practical question, what principles and modes of government are best adapted to promote the legitimate ends of government.

This credit must indeed be awarded to the American republic, that it has not only afforded to the world an example of the successful workings

* It is true that in the second part of the "Rights of Man," published in 1792, Paine does deign to go, to some small extent, into the question of expediency in matters of government, though even here the question of expediency is rather incidental and subordinate to those of rights

of the most liberal and free, and therefore most highly developed and best, government* that has ever existed among men, but has also furnished it with the most masterly disquisitions on government, in the expositions of the principles of that government to which the deliberations and discussions upon it, which preceded its establishment, incidentally gave rise. Whatever may be the demerits, defects, or deficiencies of the American system of government, beyond all question, it approaches much nearer, than any that has ever existed among men, to the realization of the aim of Rousseau, in his Social Contract, which, as we have already seen, he prosecuted with so little success—a government which should "join the considerations of natural right and public interest, so that justice and utility may never be disunited."†

Favorably circumstanced, beyond all former example, for the successful operation of the freest and best government, as were the American people, belonging to a race of men eminently, and beyond all other example, well adapted to receive such government, already habituated to many of the forms of such government, enjoying the advantages of all former experience, as well as reasonings, on government, and acting under the advice of statesmen whose sagacity and integrity have not been surpassed in any age, it would have been singular if this people, on attaining their independence of the British Government, and seeking to establish one for themselves, had failed to establish the best government ever known among men—a government which comes nearer than any other to the realization of the true rational theory of government—*a government which joins the considerations of natural right and public interest so that justice and utility are almost completely identified.* They did not fail to do it. They did their work well—they did it admirably. Never before nor since has so admirable a government been established among men as that, the outlines of which are to be traced in the Constitution of the United States of America, which has been the model on which all the separate State governments of the American Confederacy have been, in the main, formed.

If, however, the actual government adopted by the American people was the best ever established, not at all inferior, relatively, was the theoretical exposition of the principles of that government to which the deliberations that preceded its establishment gave rise. The *commentary*, as those expositions may be considered, was worthy of the *text*. Prominent and pre-eminent among those expositions was that admirable series of disquisitions, published over the signature of "Publius," in the public journals of the time, the joint production of those illustrious statesmen, John Jay, James Madison, and Alexander Hamilton, and which have since been published in the book form, under the comprehensive title of the "Federalist."

This justly celebrated work is undoubtedly one of the most masterly and valuable disquisitions on government that has ever appeared in any

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* It may be well here to remind the reader, that, according to the definition we have given of the *best government* twice already, in this review, and once in this very article, that is the best government, which insures the great ends of government, (stability, order, and general security of person and property,) with the least sacrifice of the liberty of the citizen; or, in other words, *as that government which renders the largest measure of individual liberty, consistent with order and stability in the industrial as well as political affairs of the State.* According to this definition, against which the writer confidently challenges and defies criticism, the American government is undoubtedly the best that has ever existed in the world—though not of course the best adapted to every people.

† See Rousseau's Social Contract, book 1., p. 1.

age or country. Its great advantage, over most political disquisitions, is its greater directness of aim at the true ends of government, and the practical details necessary to effectuate those ends; and this great advantage is greatly enhanced by the fact that its aim is conformed to the actual details of a government which may be regarded as the legitimate product of the accumulated experience and wisdom of all former ages.

In fact, the Federalist is to the American Constitution what grammar is to language. It is a scientific and masterly exposition of the principles actually embodied in that constitution; and as that constitution is the best that the accumulated wisdom of ages has been able to devise, so the exposition of its principles, embodied in the Federalist, is the best practical disquisition on government that the accumulated wisdom of ages is able to exhibit—the more especially (as might reasonably be inferred) since the chief author of that disquisition was one of those transcendent intellects, of whom one of his eulogists has said, "whoever was *second*, Hamilton must be *first*"*—a remark, indeed, which, if justly applicable to any men that have ever lived, may be applied to two—Julius Cæsar and Alexander Hamilton.

Should it be thought extraordinary that a disquisition on government, written mainly by such a man, under the circumstances under which the Federalist was written, and with all the lights which then surrounded him, should be the ablest and best that ever appeared among men? It was undoubtedly such. In comparison with it, much that we find in Aristotle on Politics, nay, not a little of what we find even in Montesquieu's Spirit of Laws, may be considered as but "the idle talk of old women."

In short, and subject to some qualifications, whatever government or political institutions can do for mankind, that which was expounded by Hamilton, and inaugurated by Washington, has done. And if it is found that even under such government much social grievance is still experienced by mankind, it should be conclusive proof, even to the most superficial, that it is to other than *political causes* that we must look for further social improvement.

While remarking on the contribution to Sociology from the political philosophers of America, some special reference to Jefferson may appear to be demanded. For while this distinguished statesman wrote no formal disquisition on government, except the immortal document, styled "Declaration of Independence," he succeeded, by the general tone of his conduct and conversation, by his letters and public communications, as President and otherwise, in impressing some of his leading traits and ideas on his country in a singular degree. The scope of our review forbids us, however, to bestow on him more than a very brief notice.

Jefferson, as we have already remarked, belonged to the *radical*, rather than to the *conservative*, wing of the republican party of the world—to the French rather than to the English school of republicanism. Jefferson, in fact, completed the *trinity* to which Rousseau and Paine belonged, though he was far superior to both his compeers in discretion and general scope of thought. Like them, he saw the bearing of *principles* more clearly than that of their limitations. Like them, he was too much enamored of his *ideas* to see their defects. Gœthe has justly said, "a great

* See Mason's funeral eulogy on Hamilton.

work requires many-sidedness." Nature, in forming Jefferson, seems to have been oblivious to this remark of the great German philosopher. She gave him the genius, but omitted the "many-sidedness"—a quality than which none is more indispensable to form a truly great sociologist or political philosopher.

Should it ever be found that pure democracy is the best kind of government for men, then it will be found that they are in the right who admire Jefferson for the proclivities he has powerfully aided in giving to the popular institutions of his country. But should the time ever come when it will be universally seen that, in all things, *truth lies between extremes*, that all principles are to be received with qualifications, and that the principle of Democracy, like every other, is best applied when checked and counteracted by other principles, then it will be universally conceded that Jefferson was not the wisest counselor the American people ever had.

Before concluding this cursory review of sociological ideas belonging to the first class of the Political School, we should not omit notice of a recent work, scarcely less distinguished by the originality and boldness, than by the directness and perspicuity of its views—views, moreover, from which much valuable suggestion may be drawn by the discriminating social philosopher. The work alluded to is the able "Disquisition on Government," by the late illustrious American statesman, John Caldwell Calhoun, which first appeared in print in 1851. The work may be briefly characterized as a powerful reaction, springing up in the very heart of the great democratic spirit of the age, against the idea *that the majority have the unqualified right to rule the minority.* The grand aim of the illustrious author evidently was, to ascertain how the rights of minorities are to be protected in republican governments—a highly important inquiry, truly, and well worthy of philosophic attention. It is true that his aim is somewhat differently and more comprehensively stated by him. Thus, he informs us, in one place, that the grand aim of society should be "a government so constituted as to suppress the expression of all partial and selfish interests, and to give a faithful utterance to the sense of the whole community in reference to its common welfare"* —an end almost as impracticable, by the way, as that aimed at by Rousseau, yet surely desirable. The plan by which he proposes to realize this end is that by which he proposes to protect the rights of minorities, namely, this, *to take the sense of the community on every question by its separate component parts, so that each part of the community will have a check upon the whole.* In short, Mr. Calhoun would have a government organized somewhat after the plan of the Polish Diet, where every nobleman had a *veto* on all the rest, or of a jury where each juryman has the same power, and unanimity is necessary to a decision. He admits, however, that this would be carrying the principle rather too far; but that some further approximation might be made to this method than has been yet attempted, in most governments, he very justly maintains. "All constitutional governments," he very truly remarks, "of whatever class they may be, take the sense of the community by its parts, through its appropriate organ, and regard the sense of all its parts as the sense of the whole."† This is very true, and as it should be; and the only question is, into how many parts is it expedient to partition a community,

* See Calhoun's Disquisition on Government, p. 39.

† See pp. 86-7.

with a power in each part, through its appropriate organ, to speak out and hold in check all the rest. Should there be something more than a house of representatives, a senate, a president, and a judiciary department, each vested with such independent power?

One of the most distinguishing merits of this disquisition of Calhoun is its directness of aim—the distinctness of purpose with which the author marches up to the really important points to be considered. To one who has had critically to examine the disconnected, vague, and, in many respects, aimless efforts of many others, before his time, to effect something for political science by their speculations, it is truly refreshing to observe how this gigantic intellect, this *colossal* logician, advances straightforward to real points, substantial issues. The aim of his work is somewhat more distinctly stated by him near its commencement than in the passage already quoted from him on that point. He there states his aim to be, to ascertain "By what means can government, without being divested of the full command of the resources of the community, be prevented from abusing its powers."* And, yet more distinctly, on the next page, he says, "What I propose is, to explain on what principles government must be formed, in order to resist, by its own interior structure, or organism, the tendency to abuse power."† This is a theme truly worthy of a statesman and political philosopher. It should be superfluous to add, concerning a statesman of such renowned abilities as Calhoun, that he handles it with ability. The answer which he arrives at is, that which we have already stated, and is substantially—*an organism with extensively disseminated self-checking powers.*

When we compare the clear and direct disquisition of Calhoun with the vague and pointless ones of many antecedent political inquirers, we are almost tempted to exclaim that political philosophers before his time were striving to find out, and to declare, what it was that they were aiming at, and at last found expression in Calhoun. Yet even in him they find only half a tongue. For Calhoun does not inquire, or scarcely at all, *what government should do for society*, but, *what is to be done to prevent government from transgressing its legitimate province, and inflicting injury on society.* This latter question, however, is much more difficult than the former, though to common observation it may not appear so.

Art. II.—PHILADELPHIA—ITS MANUFACTURES.

POPULATION—COMPARED WITH NEW YORK—ADVANTAGES OF SITE—MINERALS—VALUE OF MANUFACTURE—POSITION OF STATE—ACCUMULATION OF CAPITAL AND MATERIALS—AGGREGATE OF MANUFACTURE—PRODUCT PER HEAD—DISTRIBUTION OF INDUSTRY—CLOTHING IN PHILADELPHIA—EFFECT OF PANIC—STATE OF THE TRADE IN BOSTON—TEXTILE MANUFACTURES IN PHILADELPHIA—FACTORIES—MODE OF MANUFACTURE—WOOLENS—LABOR VALUE OF COTTONS—TABLE OF FACTORIES—GOODS CONSIGNED TO PHILADELPHIA—LOCAL PRODUCTION—AGGREGATE MARKET—IRON TRADE—PRODUCT—PIG IRON—ROLLING MILLS—WOOLENS SOLD IN PHILADELPHIA—COMMERCE.

THE new census returns of Philadelphia give a remarkable increase in the population of that city. It treads closely upon the numbers of New York, and it is probable that the native increase, unaided by immigration, is larger than in New York. The relative advantages of the cities

* See Calhoun on Government, p. 10. † See p. 11.

are very great, according to the direction of their separate industries. New York, by means of its great harbor and other resources, has been necessarily the center of the national foreign commerce. Philadelphia has, however, equally unrivaled advantages as the center of the national manufactures. If Boston is the center of the shoe and textile manufacture, Philadelphia is the center of that large class which depends mostly upon the metals and minerals. The influences which are said to have determined Penn in the choice of the sites for his city, were "the approach of two rivers; the short distance above the mouth of the Schuylkill; the depth of the Delaware; the land heavily timbered; the existence of a stratum of brick clay on the spot, and immense quarries of building stone in the vicinity." To these advantages have been added others of immense utility, both natural and artificial. The most important of them are the coal and iron beds of the interior, which not only supply her artisans with fuel and other materials, but leave a large surplus for export to surrounding and distant cities. The importance of that resource is manifest in the fact that the number of miles of canal in and leading to the coal regions is 815, and of railroads 1,564 miles; aggregate cost, $127,350,044. The production of pig iron is 306,000 tons per annum, worth $7,500,000. The quantity of coal produced in the State is 8,800,000 tons, of which nearly one-half, worth $12,400,000, is received annually at Philadelphia. The coal and iron together in the State worth nearly $35,000,000 per annum, taken from the bowels of the earth—a mining value second only to the gold product of California. The State itself is the only one which, enjoying an ocean coast, has also a lake port, and at the same time commands the Western river navigation, all of which are united by extensive systems of rails. Under these circumstances, it is not a matter of surprise that the accumulated capital of Philadelphia, acting through a large population upon the manufacturing materials at hand, should irresistibly centralize the manufacturing strength of the country. It is not therefore a matter of surprise that the manufacturing productions of Philadelphia should last year have been found to reach nearly $1,200 per annum for each person employed, or that the aggregate should be $175,000,000 per annum. This figure gives an increase of $100,000,000 since the census of 1850. The largest of the items which make up this aggregate is cotton and woolen goods—$14,813,000—and next clothing, reaching $9,640,000 per annum. The industries are well distributed, employing great numbers of people. The panic of 1857 seemed to affect the manufacture of textile fabrics less than most other departments. In Boston, on the other hand, various causes operated in 1857 in favor of manufacturing stock of clothing at cheap rates. 1st. The increase in the variety and perfection of sewing machines at low prices, thus allowing many persons of moderate means to possess an instrument which greatly facilitates and increases labor. 2d. The suspension of many of the cotton and woolen mills of New England left unemployed a class dependent upon their daily labor for support, who gladly availed themselves of any occupation which might present itself, even at reduced prices. 3d. The large auction sales of woolens in the early part of the season established prices in market much below those of the former year. Large stocks of woolen goods, pledged as collateral by manufacturers, were also to be found in the hands of the commission houses These circumstances, injurious for the moment, gave great breadth to the business in subsequent years.

In relation to this branch of trade in Philadelphia, the able Report of the Board of Trade of that city remarks:—Before the close of 1858, the entire machinery prepared for use, of which perhaps three-fourths had been stopped for some months, was again employed, and considerable extensions of buildings, and additions of machinery, have in some cases been made during the last few months. For this early recovery of activity, the energy of manufacturers is not more to be credited than the natural advantages of the market and the character of the goods made, which are of the classes indispensable in the daily use of all parts of the country. Domestics of all classes have for three months past been made there at a rate of production exceeding that of any former years. The manufacture of prints, bleached cottons, and fine woolens has been established here, on a larger scale than before, during 1858; and the classes in which the city has always excelled have been very busy, though they have added little machinery, and erected no new establishments. The carpet factories, and all those occupied on fancy woolens and various fabrics of silk or other material for trimmings and ornamental uses, have been fully employed during the last half of the year; the manufacture of carpets having been particularly active.

An elaborate examination of these factories, in which those nearest the city were all visited, was made during the early part of 1858, and a statement of their machinery, working-force, and production, was prepared and published in the *North American* at that time. Many additions to the published collection of facts were subsequently made during the year, and the ground once gone over, has again been thoroughly examined, particularly in cases of ascertained or suspected changes. The proprietors of all other establishments have been consulted as far as was necessary to retain a knowledge of their general condition, and these revised and complete results are embodied in the following tables. The division of districts here made is somewhat arbitrary, but it had its conveniences in the preliminary examination of the whole ground, and it at least serves the purpose of assisting to attain accuracy by identifying localities, and by affording opportunities for correcting the details.

The First Division embraces the central part of Philadelphia County, or the city proper, inclusive of West Philadelphia, and the northeast suburbs of Kensington, Frankford, and Holmesburg, with Gloucester, across the Delaware in New Jersey, at which point a large corporate establishment is located, the business of which belongs exclusively to Philadelphia.

The Second Division embraces Manayunk, Germantown, the Falls of the Schuylkill, and the adjacent parts of Montgomery County across the Schuylkill.

The Third Division includes Conshohocken, Norristown, Phœnixville, and Reading, with the numerous factories on various tributaries of the Schuylkill in that vicinity.

The Fourth Division includes Delaware and Chester counties at the south; and a Fifth Division embraces a number of factories located at Harrisburg, Lancaster, Wilmington and its vicinity, Millville and Trenton, New Jersey, etc., all of which are within the trade limits of Philadelphia, finding their markets and transacting their business there.

The condition of the general manufacture of cottons and woolens at and near that city, is peculiar in comparison with the like departments

of manufacture in other parts of the United States, and particularly in New England. In almost all cases the establishments are the property of a single person, or a single business firm; and they have grown up, from the smallest germ, in the hands which now hold them. These proprietors are averse to notoriety or publicity in any form, and they often conduct a large business for years through one or two selling houses, without the knowledge of the trade generally. This is particularly frequent with the factories located on the water-power streams tributary to the Schuylkill and the Delaware, which were the earliest establishments in the country, existing for many years before the use of coal, and the introduction of steam-power. To the original water-power possessed by these, it has been more convenient to add steam where they are than to change the location of the factories; and the consequence is, that many very large and successful establishments exist in the vicinity of the city, conducted, almost without being known at all, by the individual proprietors, whose quiet habits were formed when conducting the small original establishments.

Another point deserving notice is the predominance of woolens in the entire manufacture, particularly from the mills least known, and making the least show of machinery. The city is the largest consuming market for wool in the United States, and the production of valuable goods of that class is large in proportion. The aggregates of cottons and woolens cannot be completely separated in consequence of the great proportion of mixed cloths, and still more of the frequent changes from cottons to woolens in the same factory—changes arising from the demands of the market, or from the greater convenience of working the several staples at the different seasons. A share of the production can, however, be distinguished, particularly on the side of plain and printed cottons, but the heavy branch of it is on the part of the woolen and mixed establishments.

The manufacture of cottons of the description which constitute the staple production there, also adds more to the value of the raw cotton than in the New England factories. To the prime cost of thirteen cents per pound the entire process adds from eighteen to forty cents, producing fabrics worth thirty to sixty cents per pound. The cost of dyes and of labor is much greater in the factories engaged on those goods, and the production of a certain number of spindles and looms is much larger in proportion. A factory of 10,000 spindles will there make $550,000 to $600,000 worth of these cottons, called ginghams, checks, and fancy goods, employing 650 hands, and working over 500 looms. The production of print cloths, sheetings, and other white and brown goods, is far less in proportion to the machinery employed.

In the area defined as the First Division, which is Philadelphia city proper, exclusive of Manayunk and Germantown, there are 92 power factories, working 179,500 spindles, 6,160 power-looms, and employing 9,625 persons. This is exclusive of hand-loom work on checks, carpets, and hosiery, for which separate items will be given.

In the Second Division, Manayunk and Germantown, there are forty-eight power factories, working 84,938 spindles, 2,736 power-looms, and employing 3,320 persons. In this district there is also a very large force on hand-looms and hand-work, numbering nearly 2,000 persons.

In the Third Division, the upper Schuylkill, there are twenty-six power-

mills or factories, working 79,426 spindles, 2,243 power-looms, and employing 2,250 persons.

In the Fourth Division, Delaware and Chester counties, there are sixty-three power factories, working 114,250 spindles, woolen and cotton, 3,080 looms, and employing 4,344 persons. Several of the factories in remote parts of Chester County have been estimated for, at low figures, but of those in Delaware County, very full and accurate information has been obtained, chiefly through the favor of John P. Crozier & Sons, and Samuel Bancroft, the heaviest proprietors resident there.

In the Fifth Division, embracing the large mills at various localities more remote than those before named, which are yet owned and controlled in Philadelphia in most cases, and in all cases directly connected with this market, there are twenty-five large power factories, working 112,250 spindles, 3,268 looms, and employing about 3,500 persons. The largest amount of machinery is on the Brandywine above Wilmington, in Delaware, and next that at Lancaster, where three large cotton mills are located.

In the following table these divisions are completely presented, and the machinery is given as fully as may readily be done in such a case:—

FACTORIES AND MACHINERY.

Divisions.	No. factories.	Cotton spindles.	Wool spindles.	Silk spindles.	Total.	Power looms.	Setts wool'n mach'y.	Setts print'g mach's.
1.....	93	113,054	40,260	26,200	179,514	6,160	118	32
2. ...	48	53,688	31,250	.....	84,938	2,650	104	7
3.....	26	66,416	13,010	.....	79,426	2,243	48	..
4.....	63	74,070	40,180	.....	114,250	3,080	122	..
5.....	25	103,750	8,500	.....	112,250	3,268	27	..
Total..	255	410,978	133,200	26,200	570,378	17,401	419	39

FORCE AND PRODUCTION.

	Persons employed.	Value of prints.	Value of white and brown cottons.	Total production.
1.....	9,525	$3 621,430	$1,575,000	$12,196,679
2.....	3,320	675,000	135,000	4,744,320
3.....	2,250	.....	750,000	2,246,000
4.....	4,344	.....	215,000	3,653,000
5.....	3,170	.....	1,015,000	3,099,000
Total.....	22,709	$4,296,430	$3,690,000	$25,939,000

HOSIERY, CARPETS, AND HAND-LOOM PRODUCTION, (EXCLUSIVE OF POWER LOOMS.)

	Persons employed.	Looms.	Value of production.
Hosiery, cotton and woolen.....	1,080	530	$945,000
Carpets.....	2,350	1,650	2,225,000
Cotton checks, etc	2,400	1,680	1,320,000
	5,830	3,860	$4,490,000

SILK AND FANCY NARROW GOODS, (EXCLUSIVE OF POWER FACTORIES.)

No. establishments.	Persons employed.	Value of goods.
22	1,450	$850,000

PRODUCTION OF TEXTILE FABRICS OF WOOL, COTTON, AND SILK, IN AND NEAR PHILADELPHIA.

Wool, cotton, and silk in power factories.....	$25,939,000
Hand-loom work, on hosiery, carpets, and checks.....	4,490,000
Silk and narrow fabrics by hand-power.....	850,000
Total production.....	$31,279,000

Number of factories, 270 ; cotton spindles, 420,968 ; wool spindles, 146,635 ; silk spindles, 26,780. Total spindles, 594,333. Power looms, 18,429 ; sets woolen machinery, 449 ; sets printing machines, 38 ; hands employed, 23,601 ; value of goods produced, $26,095,000.

WOOLEN HOSIERY AND FANCY KNIT WORK.

500 knitting-frames, averaging $1,657 50 each	$828,750
7 factories in Germantown and Kensington	800,000
Total value of woolen hosiery	$1,628,850
200 knitting frames on cotton hosiery, $897 each	179,400
Total	$1,808,150

The entire production of carpetings, in Philadelphia, we state as follow :—

	No. of looms.	Earnings of weavers.	Production. Yards.	Production. Value.
Ingrain	1,500	$695,000	6,480,000	$2,592,000
Rag	560	126,000	1,680,000	504,000
Total	2,060	$821,000	8,160,000	$3,096,000

Philadelphia is now the chief seat of general manufacture of trimmings in the United States. There are now about thirty establishments in that city engaged in the various branches, including carriage laces, regalia, and upholstery. We shall here only allude to the most complete concern of the kind in the Union. It employs 400 hands, who receive $100,000 annually in wages ; have a capital of $400,000 invested in the business, and produce an annual average product of $600,000.

Not only is this large production carried on in Philadelphia and its vicinity, but that point also distributes a large amount of goods manufactured elsewhere.

A very few years have elapsed since the cotton and mixed cotton and woolen manufactures of Delaware County, Pa., and of the vicinity of Philadelphia on the north, were principally consigned to Boston and New York by the manufacturers. Very little reliance on Philadelphia as a commission market was then made, and its character as such has been mainly acquired within fifteen years. Of course there are irregularities in conducting this disposition of manufactured goods, and some manufacturers form connections with commission houses in New York or at the East, which now take more than they formerly did, or perhaps the entire stock ; but, on the contrary, a larger number have gone to sell their goods exclusively there. During the latter part of 1858 particularly, the share first sold to dealers there was much increased over any former year, and the stock required at New York and Boston was purchased by dealers there of the commission houses of Philadelphia.

In Delaware and Chester counties, including some factories in the State of Delaware which send their goods to Philadelphia, the manufacture of the year ending with June, 1857, was nearly as follows:—

Cottons, about thirty factories	$2,950,000
Woolens, about thirty-three factories	2,275,000
Total	$5,225,000

Of this aggregate, it is stated by the principal manufacturers that five-eighths are consigned to Philadelphia, one-fourth to New York, and one-sixteenth each to Boston and Baltimore. These proportions give

$3,200,000 for the quantity consigned to Philadelphia houses from this section of the manufacturing district, as determined by several proprietors who make much the larger share of the goods.

From the best information obtainable in regard to the Lancaster, Harrisburg, Reading, Norristown, Gloucester, and Millville manufacturing establishments engaged upon white and brown cottons, it is probable that at least seven-eighths of their entire production is consigned to Philadelphia. The aggregate of this production is not far from $5,000,000, nearly all of which might, in truth, be set down to the account of consignments to Philadelphia commission houses, or directly purchased by its large distributors. In the same rank with this account of brown and white cottons, are the prints manufactured there, which, like the first, are not adapted to the eastern markets at all, and very little to that of New York. The quantity of prints made there was not large until within three or four years, but it is now rapidly increasing. The quantity offered in 1856–7 was probably of the value of $3,000,000, and for the current year it will go nearly as high as $4,000,000. The number of print works is not large, but the operations of all are on an extensive scale. The Conestoga, Washington, the Atlantic, and Niagara dark prints, and some other lines, are as widely and as favorably known as any in the market from Eastern manufacturers. The proportion of these goods consigned to New York, Boston, and Baltimore does not exceed one-eighth, if it reaches so large a share as this.

In the manufacture of woolens, mixed cloths, and carpets at Philadelphia, and near it on the north, there is much more difficulty in attaining a decision as to the proportion first entering that market from the manufacturers. Carpets are largely consigned to New York, and jeans, checks, cottonades, and other standard descriptions of "Philadelphia goods," are now, as they long have been, sent in very large quantities both to New York and Boston. The aggregate of these manufactures is nearly $8,000,000, and of this quantity three-fourths is taken in the first instance in Philadelphia. A share is again sent forward to commission houses at New York, in a manner similar to the re-consignment of Eastern goods to branch houses at Philadelphia; but if the miscellaneous textile fabrics of a fancy character, or other than cloths, are taken into account, the whole aggregate is greater than $8,000,000. It is safe to place this department, which includes the factories of Manayunk, Fairmount, Kensington, Frankford, West Philadelphia, and Montgomery County, with the area of the old city, at a production of $6,000,000 for the Philadelphia market alone.

Putting these quantities together, we have for the extent of the market in consignments from manufacturers within the trade limits of Philadelphia, the following values:—

Delaware County and the South, cottons	$2,950,000
" " " " woolens	2,275,000
White and brown cottons for the whole district	4,500,000
Prints for the whole district	3,500,000
Woolens and mixed goods for Philada. city and the northern half	6,000,000
Aggregate	$19,225,000

It is proper here to say, that to assume the statistics of manufactures given in the census of 1850 as a full representation of the manufacture

of domestics for Philadelphia, is to make an absurd undervaluation, and one so far below the truth of the case as to be little creditable to any party making the statement. The greater defects and deficiencies of the census there, as compared with the Northern States, are too plain for dispute; and it may serve as proof of the fact to see, that while Massachusetts claims now but a relatively small advance upon the production both of 1850 and 1855, all admit a very large advance in Philadelphia, and at the same time an aggregate production so great as to show that the census of 1850 could not have given more than half the production in textile fabrics. One reason for the difference is found in the fact that nearly all the establishments there are conducted by individual proprietors, who are always averse to any statement of the extent of their business; while at the East, much the larger share is in corporate establishments, whose reputation and interests of every sort are advanced by a full statement of their business, particularly if it is large and prosperous.

The entire market in domestics made up in Philadelphia from Eastern, Northern, and Philadelphia consignments, may be stated from the evidences and statistics we have given in the foregoing notices. A market so large cannot be ignored or set aside.

AGGREGATE OF DOMESTICS FINDING MARKET AT PHILADELPHIA.

Eastern and Northern cotton	$12,700,000
" " woolens	7,200,000
Southern cottons, coastwise	750,000
Maryland cottons	500,000
Delaware County cottons	2,950,000
" " woolens	2,275,000
Philadelphia white and brown cottons	4,500,000
" prints	3,500,000
Philadelphia woolens and mixed cloths	6,000,000
Aggregate	$40,375,000

We copy the following statement from the Philadelphia *Manufacturers' Gazette*:—

IMPORTATIONS OF DRY GOODS IN 1859.

General importers, about sixty houses	$14,930,000
Importers and jobbers of silks	3,135,000
Importers and jobbers of cloths exclusively, and with other goods	3,345,000
Importers and jobbers of white goods	720,000
Importers and jobbers of laces, trimmings, hosiery, etc.	1,080,000
Importers, jobbers, and retailers	960,000
Importers of carpets	485,000
Total imports of dry goods	$24,655,000
Entered at the port of Philadelphia	2,839,570
Entered at the port of New York	$21,815,430

DISTRIBUTING OR JOBBING TRADE.

Jobbing houses proper	$35,000,000
Silk and white goods houses	8,500,000
Miscellaneous small goods, or notions	5,600,000
Cloths	10,000,000
One-fifth of domestics	8,000,000
Two-fifths of the direct imports	6,800,000
Total	$73,800,000

DOMESTIC COTTONS FROM NEW ENGLAND PASSING THROUGH COMMISSION HOUSES IN PHILADELPHIA.

	Bales or packages.	Value.
Prints and delaines	30,250	$6,100,000
Brown and bleached cottons	71,500	6,600,000
Total	101,750	$12,700,000

DOMESTIC WOOLENS FROM NORTH AND EAST, SOLD ON COMMISSION AT PHILADELPHIA.

1856.	20,000 cases, at $320	$6,400,000
1857.	18,500 cases, at 320	5,925,000
1858.	23,500 cases, at 310	7,285,000

The leading interest of Pennsylvania is, of course, iron, and that figures largely in the trade reports.

The present condition of the American iron trade is far from being a fair representation of the natural strength of that part of it which properly belongs to the trade of Philadelphia. At the height of the financial difficulties of 1857, nearly all the iron works were compelled to suspend operations, temporarily or permanently, and though they were very soon resumed in many cases, the majority continued silent through most of the year 1858. Many which were so long stopped are now resuming operations, however, and it is believed that the production of the anthracite districts of the Lehigh and Schuylkill will soon be as large as at any former time.

The following tables are from the report of the Secretary of the American Iron Association. The summary shows the distribution of the iron business of the country, in all its departments, and though the latest full tables prepared are for 1856, the proportion of the total production falling to Pennsylvania, is increased rather than diminished in 1857 and 1858. In both these years the furnaces of the Susquehanna, Schuylkill, and Lehigh anthracite regions sustain their production much better than any others in the United States, and the chief rolling mills of the State are also far better sustained than any elsewhere. The aggregates for 1856, in the production of anthracite and charcoal pig iron, and of the rolling mill product, very forcibly exhibit the leading place Philadelphia and the State have in the entire business:—

	In Penn.	All other.	Total.
Product of anthracite pig iron in 1856.....tons	306,972	87,537	394,509
" charcoal " "	96,154	252,700	348,854
" coke " "	39,953	4,528	44,481
" bituminous coal "	8,417	16,656	25,073
Total pig iron	451,496	361,421	812,917
Product of rolling mills.....	241,484	256,597	498,081

Pennsylvania has thus 90,000 tons of pig iron more than all other parts of the Union together, and its anthracite iron falls but 50,000 tons short of the production of all other States. This anthracite production is all so near Philadelphia as to belong in a peculiar degree to its trade.

For the purpose of adding to these the most recent results in regard to the production of the leading districts, there has been obtained from the proprietors of several of the leading anthracite furnace works their production for 1857 and 1858, and the like facts from several of the rolling mills. In the Lehigh district most of the furnaces have continued in blast through the whole period of disaster to the trade generally, the

demand for their iron, which is of superior quality, and has almost entirely displaced the Scotch pig for the use of founders, being such as to keep them steadily employed. The Schuylkill district is next to the Lehigh in the character of its iron and in the quantity produced, but the furnaces are fewer in number and the works smaller. Many of these have remained suspended through most of the year 1858, but all are now resumed or preparing to resume. Ascending the Schuylkill, we find more than half the number of anthracite furnaces out of blast during 1858. One of the "Wm. Penn" furnaces was out; the "Spring Mill" furnace was out half the year; the "Merion" out until April; the "Swede" furnaces both out, one of these having resumed in February last, and the other soon to resume; the "Norristown" furnace wholly out, as also the "Montgomery," at Port Kennedy; two of the four "Phœnix" furnaces; one of the "Henry Clay" works at Reading, and that of Seyfert McManus & Co., at Reading, with perhaps three or four more of those beyond Reading. The production of fifteen of the twenty-two in the Schuylkill district, in 1857, as reported to the Iron Association, was 48,310 tons, the whole not exceeding 60,000 tons. In 1858 the number out of blast must necessarily have reduced the total to 40,000 or 45,000 tons.

The anthracite furnaces of the Susquehanna have been fully as much reduced in production, through 1858, if not more. In 1857 those on the main Susquehanna and on the North and West Branches, together, produced, for 25 furnaces heard from out of 46 in existence, 75,759 tons against 79,188 in 1856. A large share of those not reporting were not in operation, and the total did not reach 100,000 tons. In 1858 the production did not probably exceed 55,000 tons. The Bloomsburg furnaces, however, produced the same quantity as in 1856, but less than in 1857.

The Lehigh district sustained its production much better. Of the twenty furnaces in blast in 1857, but two or three were suspended in 1858. Several of the furnaces were out of blast for a part of the year, but the Crane Iron Company, the Allentown, the Thomas or Hockendaqua, the Glendon, Cooper, and other works, were quite generally kept in full operation. The production of four of the leading establishments of this district have been communicated by the proprietors, and these exhibit a decline of but about 5,600 tons from 1857, and about 7,000 tons from 1856. Extending the table subsequently given from the Secretary of the Iron Association, to embrace 1858, we have the following comparison:—

ANTHRACITE PRODUCTION FOR THREE YEARS.

	1856.	1857.	1858.
In the Lehigh Valley, 20 out of 24 furnaces....	121,021	113,299	100,000
" Schuylkill " 15 " 22 "	43,275	48,310	35,000
Along Susqh'na " 25 " 48 "	79,188	75,759	50,000
Total for furnaces reported.....	286,160	281,980	185,000
Actual total for 1856, and comparative totals for 1857-8.....	306,972	300,000	200,000

The proportions, of course, are not full in case of the furnaces not making returns for the last two years, since the majority were out of blast and making no iron, at least during the larger share of 1858.

The productiveness of the Anthracite Iron Works of Pennsylvania is

illustrated by the following statement of the actual operations of the Lehigh Crane Iron Company's Works for the past three years, the leading establishment of the country, and probably the most productive in the world. The statement is obligingly furnished from the office of the company, and its separate publication is permitted at the request of the Philadelphia Board of Trade. The whole number of furnaces at these works is five, and the full capacity of works 45,000 tons of pig iron per annum:—

	1856.	1857.	1858.
Number of furnaces in blast	4	2 full. 2 part of year.	1 full. 3 part of year.
Aggregate production.....tons	31,094	30,948	28 870
Tons of coal used in furnaces and mines....	67,900	66,500	60,800
Tons of ore used	69,600	71,300	67,100

Far the larger share of the rolled iron, both bar and railroad, which is manufactured in the United States, is made in Pennsylvania, and most of this share within reach of the business of Philadelphia The amount of railroad iron made by works of the State in 1856, in comparison with the total for the entire United States, is thus stated by the secretary of the American Iron Association:—

	Tons rails.
Pennsylvania rolling mills	83,884
All others	57,721
Total rails rolled	141,555

The Trenton Mill, New Jersey, rolling about 13,000 tons in 1856, really belongs to the account of Pennsylvania iron rolled, in a great degree.

The production of rolled iron in Pennsylvania has of course fallen off during 1857 and 1858, as in the case of pig iron, but the natural strength of the establishments is strikingly shown by the degree to which the manufacture has been sustained under the heavy disadvantages now existing. The following is the aggregate of two establishments for 1857 and 1858, in comparison with the product of 1856—the Phœnix Iron Company's Works, on the Schuylkill, and the Cambria Iron Works, at Johnstown, Pa., both of which are owned and controlled in Philadelphia:

	1856.	1857.	1858.
Product of the rolling mills named.....tons	31,798	34,599	43,278

The production of the Lackawanna, Montour, and Safe Harbor Mills, is not known. Several other mills in Pennsylvania have been altogether silent during most of the year 1858, and the aggregate produced in the State is probably not more than two-thirds the product of 1856, and it may not exceed half that product. Considering the great natural extension of demand, and the increased capacity of the works, this is a striking proof of the severe pressure existing on this, as on every other branch of the iron-producing interest. The report of the secretary of the Iron Association on this branch of the iron trade is extremely valuable, and quite full on all other points relating to the production of railroad iron.

There are several rolling mills for plate, boiler, and bar iron located within the city limits, and others in the vicinity are controlled by Philadelphia business houses. In every branch of manufacture, except perhaps nail making, the iron worked there is in proportion to the produc-

tion of pig iron. The mills rolling steel, plate, and bar iron have been generally more active during the past year than the rail mills, and they are now as fully employed as at any time in 1857, previous to the financial difficulties. The deficiency in production during the year of least activity, leaves the market bare of many descriptions of small iron, and the present activity is in part induced by this unusual demand. The mills of the city, and those of the vicinity represented there, are particularly distinguished for steel rolling, in part from English bar iron, and for the finer grades of sheet and plate iron. The sheet iron closely approaches the Russian in quality, and it is largely used for all the purposes to which that is applied.

Several of the mills are adapted both to rolling and forging, and others are constructed for forging alone. The Pencoyd Works execute forging more largely than rolling; the Fairhill Forge, and Norris' Locomotive Works are the principal forging works in the city itself. The Reading Steam Forge conducts heavy shaft forging exclusively. There are several other works at which more or less of this heavy axle and shaft forging is done, all of which is quite distinct from the bloomery forging of the primary class of iron works named in the report of the Iron Association.

In other parts of Eastern Pennsylvania, as we are informed by the Iron Association, there are, including the rail mills, no less than thirty-eight additional rolling mills, which roll railroad iron exclusively.

Of other rolling mills, there are seven at and near Coatesville, Chester County, four at and near Reading, one at Pottsville, two in Lancaster County, three at and near Harrisburg, one at Weissport, two at Williamsport, five near Bellefonte, etc.

The production of the steel, sheet, and bar mills of the city and vicinity was in part made up, for 1856–7, from the best information obtainable, though the mills located at any considerable distance were not included. The following numbers are close approximations to the annual prodution :—

Spring and cast steel.....tons	2,500
Bar, rod, and band iron, in the city.....	13,500
Bar, nails, and axles, in towns near..... ...	15,500
Boiler and other plate, in the city.....	2,500
" " in towns near.....	22,000

The production of sheet and plate iron is largely increasing over that of 1856–7, in the current year. Not only is the production of several mills on the border of Maryland and Delaware now carried there, but there is additional machinery employed in rolling this description of iron in and near Philadelphia. Its increased use for roofing purposes adds to the demand.

In towns of Eastern Pennsylvania, more distant than Norristown, Phœnixville, &c., the Iron Association reports as made, in 1856—

Boiler and other plate.....tons	2,190
Bars, rods, and nails.....	13,500

Taking all together, we have the following aggregate :—

Plate, sheet, and boiler iron.....tons	26,690
Bar, rods, band, and nails.....	42,500
Steel.....	2,500

The aggregate value of this production is very nearly $5,000,000.

The entire quantity of railroad iron made in Eastern Pennsylvania, exclusive of the Cambria and the Juniata works, in 1856, is stated by Mr. Lesley at about 65,000 tons. Probably the depression of 1858 reduced the production to a point not far from 50,000 tons, or to about three-fourths the business of 1856. This branch of the rolling mill operations is thus placed at about half the value of the small iron rolling. It is not over-stating the value of this second department of the iron interest of this part of the State at these sums, which, together, give an aggregate of $7,500,000 as the value of all the forms of rolled iron furnished to the uses of the country by the business circle belonging to Philadelphia. To include the Cambria Works would add largely to the aggregate of railroad iron.

Art. III.—VALUATION OF LIFE INSURANCE POLICIES.

NUMBER VII.

For the correct valuation of a life policy the most reliable tables are to be obtained from the experience of insurance companies. The particulars which they furnish as to the ages of the insured, and the number of the living and dying, are perfectly and exactly reported, and deserve, therefore, the fullest confidence; while those derived from the most correct census, or from the most careful registration, are more or less erroneous. Many of the ages in every census are unknown to the people themselves, or are reported in round numbers, or are given falsely to the census-takers, while many will be omitted entirely. This is still more true of the registrations of the deaths, when the report must be made by the survivors, who may be entirely ignorant of the age of the deceased. None of these sources of error occur in the experience of a life company. The ages are carefully ascertained and the period of death exactly known, because large amounts of money are dependent on both, and they are therefore examined and scrutinized with the utmost care. The class of people who insure generally know their age, and, having strong motives to state it correctly, their statements can be received with confidence. Besides this accuracy, there are other reasons why the life insurance experience is a proper guide for the valuation of policies. The insured are likely to be of the same class in the future as in the past. Their habits and exposures will probably be similar. Every element that prolongs or lessens the duration of life will probably exert the same influence on both. And as the mortality no doubt varies slightly among the different classes of society, this tends to strengthen the confidence to be placed in the results furnished by the life companies.

There is, however, one great objection to these tables. Many of the members of a life office are insured for a single year, many for a short period, and of those who take policies for life very many abandon them after one or two years' insurance. And these persons, having been recently examined by the company's physician and pronounced to be sound and well, are not likely to be subject to the same rate of mortality as those who have been long members of the company.

Now it is these last policies whose correct valuation is important. For the recent members the error in valuing by a wrong table is small, because the difference between the net values of the premiums and the liabilities is small, whatever table of mortality be used. When the difference becomes larger an error in the rate of mortality becomes more important.

If, then, the whole experience of a life company be made the basis of the valuations, the errors will be sensible in the very cases where accuracy is most desirable, and these errors will be on the dangerous side, making the company appear to possess a larger surplus than it really has, and tempting it to distribute dividends that have never been earned.

The difference between the probabilities of living among recent members and those who have been long insured is very great, as has been most satisfactorily shown by the several analyses that have been made by Edmonds, Farren, Brown, Higham, and others, of the published experience of the London life offices. And this unequal mortality among the younger and older policies on lives of the same age is an objection to the use of these tables for valuations of policies, and for the general purposes of life insurance.

Although this objection is real, it is believed that the tables which have been furnished by life offices are the most valuable we possess. Many of the companies have lasted so long that the influence of the recent policies is slight, and the superior accuracy and reliability of all their statements elevate their results above those which are founded on the government census and registrations. At the older ages it is not customary to admit new members, so that the experience at those ages is free from every objection. At all ages, though not perfect, they approximate closely to the true mortality; and by separating the recent members from the others the results will be free from every objection. Although the numbers are large, they are not yet numerous enough to give all the accuracy to be desired.

The Equitable Insurance Company of London was the first to publish the results of their experience. This company was founded in 1762, and has furnished the largest contributions to our stock of vital statistics. Mr. Morgan, their able and distinguished actuary, in his reports to the members, compared from time to time their mortality and that of the Northampton table of Dr. Price. The ratio was given for each decade, and was continued and repeated for several successive decennial reports. Mr. Babbage has constructed a table founded on these reports. The mortality given by him for every period of life is inserted in the second column of the table below. Since the company had existed for more than fifty years when the table was formed, it is worthy of much confidence. As, however, the ratios published by Mr. Morgan were only in whole numbers, and therefore only approximate, we shall not assign a large influence to Babbage's table in the combination we propose to make.

In the year 1829, Mr. Morgan reported to his company a full and minute account of all the experience of the Equitable from its first foundation in 1762, and as this contained the particulars of 21,398 insured persons, of whom 5,144 had died, the report is exceedingly valuable. The number of years of life enjoyed by these persons was 266,872, so that the insured had averaged more than twelve years membership in the company. Mr. Morgan has deduced from this experience a table

giving the expectation of life at every age, and from this, by a simple mathematical formula, we have obtained the rates of mortality inserted in the third column of the table below. As the expectation is only carried to two decimal places, a slight adjustment was necessary to harmonize the results, but this produced but a very small effect on the several rates. Mr. Morgan does not carry his table beyond 80, but we have used Mr. Edmonds' law to extend it to the end of life. This has been necessary with some other tables in our collection, but the law is doubtless so nearly correct that no sensible error can be introduced by this extension to the older ages, where all our tables are very doubtful and unreliable. This table is very valuable, and deserves much weight in the combination we propose.

Mr. Morgan published afterwards a supplement giving the experience for four years later, and Mr. Griffith Davies has constructed a table founded on the whole experience of the company. These rates of mortality, adjusted as before, are to be found in column fourth of our table below. The numbers used in Mr. Davies' table were smaller than usual, but it is so admirably constructed that the adjustments were unimportant.

The Amicable Society, which is the oldest of the English life offices, has given us its experience to the year 1841. Of the several tables furnished by their actuary, we have selected as the most valuable the one which gives the rate of mortality among 3,530 persons insured for life, between April 5th, 1808, and April 5th, 1841. Of these, only 505 had discontinued their insurance, and 798 had died. It is inserted in column fifth at the end of this article. Of this table Mr. Galloway remarks "that it consists entirely of selected lives, that is to say, of persons who at the date of their admission were all apparently free from disease, and by far the greater portion of those who had passed through the younger ages had lived only a few years in the society, or had been recently selected. The mortality ought therefore to be expected *a priori* to be favorable in general, and particularly so in early life; and this is found to be the case." These remarks apply to all the tables founded on the experience of life companies; less to the Equitable than to others, but to all the recent tables. We shall obviate this objection when we combine the different tables, by giving less weight to these at the younger than at the middle and later years of life. In the census the younger ages are more numerous and more reliable; in the life offices they are few and more open to objections, and therefore, for this reason also, this distribution of weights is the more appropriate.

The most valued contribution to our vital statistics was made by a committee of London actuaries, who prevailed on fifteen of their offices to contribute their experience for the purpose of forming a combined table. This table was published in 1843, and is known as The Actuaries', or "The Combined Experience." The materials were arranged and the table constructed by the most distinguished actuaries of Great Britain, among whom were Gomperz, Milne, and Edmonds. After combining their numbers with those of the Equitable and the Amicable, they had 83,905 insurances, whose average duration was more than eight years, so that the whole includes more than 700,000 years of life. As there were no children among these persons, this is equivalent to the experience of a city of 50,000 inhabitants for thirty years. It embraced town and country, English and Irish, male and female, every class and condi-

tion of society that are likely to insure their lives. And we shall not hesitate to give to this table a greater weight than any other in our proposed combination. The rate of mortality in this table is inserted in column sixth at the end of this article.

It has been objected to this table that some of the lives were repeated twice or even several times in this combination, because many policies were issued on the same life, and the experience is on policies and not on lives.

But as this did not apply to the Equitable and the Amicable, who furnished about half of the whole experience, this objection is lessened. Both the living and the dying being increased by the counting of policies, the ratio is but little altered. The numbers being very large, the effect of repetition is very slight and the chance of balancing the errors very great. This balancing is the more probable in each decade than at each year of life, and only the decades were employed in constructing the table. The adjustments therefore which are always made will tend greatly to correct the irregularities at each age. Even the errors in each decade tend to balance each other and correct the total results.

That this objection is unimportant is still further shown by the published experience of the Economical Society, who have prepared two tables, one giving the expectation of life from their policies, and the other from their lives, and both are nearly identical at all ages. The unadjusted expectations at—

The ages	20.	30.	40.	50.	60.
Were by policies.....	41.18	34.81	27.09	19.82	13.79
And by lives.....	41.40	34.82	27.20	19.96	13.83

Among larger numbers these small differences would be rendered still smaller, and by taking the decades instead of single years, and adjusting the results they would almost entirely disappear.

As an illustration of the smallness of this source of error, we present the following example in numbers. Suppose 1,000 persons to insure at 60, of whom ten per cent had two policies, five per cent had three, three per cent four, two per cent five, and one per cent six policies. The variations from the mean or true mortality would be probably greater in the smaller set of policies, but in all it would be slight if the numbers were large—suppose the variations to be ten per cent in those who had two policies, twenty for those who had three, thirty for the fours, forty for the fives, and fifty for those who had six policies. And suppose the mean rate of mortality to be four-tenths for the decade, and all the variations to increase first, and then all to decrease the mortality.

The several persons are	790	100	50	30	20	10	or	1,000
The policies.....	790	200	150	120	100	60	or	1,420
The death are first....	316	88	72	62.4	56	36	or	630.4
And second..	316	72	48	33.6	24	12	or	505.6

And the ratios are 1,420 to 630.4 or .444, and 1,420 to 505.6 or .356. So that in this extreme case where there are no compensations, where all the variations are on one side, where the deaths in those who have many policies range from 50 to 150 per cent of the mean policies in the two cases supposed, where the proportion of policies is doubtless much larger than it was in the Actuaries' experience, the difference in the rate of mortality is only 11 per cent from the mean. As the compensations, beyond all doubt, did take place, it cannot be supposed, with the large

numbers that were considered, that the error from the use of policies reached one per cent of the true mortality for any single decade.

We have considered this objection more fully than it deserved, because much notice has been taken of it by several writers, and we believe its influence has been overrated. We regard it as utterly insignificant and unappreciable.

We have taken the numbers furnished by the Actuaries', and reconstructed the table, interpolating the living and the dying by the method of differences, and proceeding then as before explained. The rates of mortality thus obtained are inserted in column seventh below. The near agreement between the two tables is a confirmation of the accuracy of both. After eighty the differences are considerable; but little confidence can be placed in the rates at these older ages, and happily this uncertainty is of little importance to an insurance company.

These contributions of the London actuaries are the more valuable on account of the separation they have made between the several classes of the members, and especially from the distinction which they have kept up between the younger and the older policies. From the town members we have constructed a table to be found in column eighth below, which differs very little from the general table.

Mr. Higham has given us the expectation of life among those members who have been so long insured that the influence of selection is no longer sensible. From this we have obtained the rates of mortality in column ninth. The difference between this and the general table is very great. At the middle period of life, from 37 to 53, at the very ages most important to a life office, the rate of mortality is more than fifty per cent higher than in the general table, and at some ages more than sixty per cent. Above seventy the mortality is less than in the general experience, but this is due to the exclusion by Mr. Higham of the Irish lives whose mortality was larger than the English. The causes of this large excess are well understood; it being due not merely to the favorable influence of the admission of healthy lives, but to the unfavorable effect produced by the abandonment of their policies by the sound and vigorous. When necessity or a change of circumstances induces any of the insured to think of abandoning their policies, or of selling them to the company, the feeble and diseased will continue their risks, while the strong and healthy will give up theirs. Thus the impaired and broken constitutions remain, while the better lives retire. Among the old members the mortality exceeds, therefore, the average of the general population, while among the new it is less.

As the valuation of policies is usually made when many of the members have been recently admitted, this table would give too high a mortality for the average members of a company; but as it represents the rate for many of the insured, and as it will embrace a larger and larger number in every future year of our companies, we have thought proper to give it a place among our tables, though we shall not allow it a large weight in the combination we propose.

We have constructed another table from Mr. Higham's contributions. He gives the rate of mortality in each year after the first insurance. We have selected the fifth year as the one most likely to represent the average mortality among the new and old members of our life companies. Mr. Higham's table has the rates for every five years. These we have

interpolated for each year, then adjusted them, and the results are contained in column tenth below. By comparing this with the general table it will be seen that it is from five to ten per cent higher between the ages of thirty and fifty, when the new members are coming in, and about the same amount lower from sixty to the end of life, when the better lives are terminating their risks by the sale or abandonment of their policies.

We have constructed one more table from these contributions of the London actuaries, and we regard it as the most reliable of all that we have. It is in the last column below, and has been formed by the omission of the first year's experience under each policy. The rate of mortality during the first year is so different from the second, third, and following years that it has no claim to any influence on the average to be expected among future members. Dr. Farr has published a long list of diseases from which the insured is free the first year, on account of his sound health when first admitted, but to which he is exposed in the second and all subsequent years. The experience of the London offices shows the mortality of the first year to be from twenty-five to fifty per cent below the average; and other offices have shown a similar result. This exclusion is therefore proper when a true average is wanted. Especially is it suitable for the valuations of a life office, where we want the average mortality among the future members, all of whom have been insured for some time.

As this table has been constructed by the aid of Mr. Higham's table of first year's mortality, which does not include the Irish lives, and as it was presumed that these had a like diminution of their mortality in the first year after the issue of the policies, the table is not a perfect transcript of the observations; but it is so close an approximation to it that it deserves a large weight in our combination.

Age.	Babbage Equitable.	Morgan Equitable.	Davies' Equitable.	Amicable, to 1841.	Actuaries' experience.	Actuaries. remade.	Actuaries, town.	Actuaries, late years.	Actuaries, 5th year.	Act'ries, after 1st year.
15	.0051	.0067	.0050	.0041	.0070	.0069	.0067	.0066	.0061	.0070
16	53	68	54	41	70	70	68	68	62	75
17	54	69	58	41	71	70	69	70	64	80
18	56	70	61	41	71	70	69	73	65	84
19	58	71	64	41	72	71	70	75	67	87
20	60	72	66	41	73	72	70	77	69	88
21	63	73	68	41	74	74	70	78	71	89
22	66	73	70	41	75	76	70	79	72	89
23	69	74	72	41	76	77	71	80	74	90
24	73	74	75	41	77	78	71	81	76	91
25	77	75	78	43	78	79	72	82	78	91
26	81	76	82	46	79	80	72	82	80	92
27	84	77	85	49	80	81	73	85	82	93
28	87	78	89	52	81	82	74	88	84	94
29	90	79	93	55	83	83	75	91	86	94
30	93	81	97	58	84	84	78	95	89	95
31	96	83	101	62	86	86	81	100	91	96
32	99	85	104	65	88	88	83	106	93	97
33	103	88	107	69	89	90	85	113	96	98
34	106	91	110	74	91	92	87	121	98	100
35	110	93	113	78	93	95	89	129	101	102
36	113	96	116	83	95	98	91	137	103	105
37	116	99	119	87	97	101	93	145	105	107
38	118	102	121	93	99	105	96	152	108	110
39	120	106	124	98	101	108	98	160	110	113
40	121	109	126	104	104	111	101	166	113	116
41	123	112	128	110	106	114	105	173	116	119

Age.	Babbage Equitable.	Morgan Equitable.	Davies' Equitable.	Amicable, to 1841.	Actuaries' experience.	Actuaries, remade.	Actuaries, town.	Actuaries, late years.	Actuaries, 5th year.	Actuaries, after 1st year.
42	125	115	131	117	109	118	110	178	119	123
43	127	118	135	124	113	122	115	183	123	127
44	131	122	139	132	118	127	120	188	127	132
45	136	125	143	140	123	132	126	194	132	138
46	142	129	148	148	129	138	133	202	138	144
47	150	134	154	157	136	145	140	211	144	151
48	158	139	161	166	143	153	147	222	152	158
49	168	144	170	176	151	162	156	234	159	166
50	177	151	181	187	160	171	165	246	166	175
51	187	159	194	197	169	181	175	258	174	185
52	197	168	207	209	180	192	186	267	181	196
53	208	179	219	222	190	203	198	276	188	208
54	219	192	231	235	203	216	211	287	196	222
55	231	206	242	249	217	230	226	290	205	236
56	242	221	253	264	231	245	242	295	216	257
57	254	238	265	281	247	262	259	300	229	270
58	266	257	278	300	264	280	278	306	244	289
59	277	278	290	321	283	301	299	315	260	310
60	288	300	302	345	304	323	321	329	279	322
61	299	322	316	373	327	346	345	349	299	355
62	311	344	330	405	352	372	371	375	322	379
63	323	367	347	440	379	398	398	405	348	405
64	336	391	367	478	409	426	427	439	376	433
65	351	420	389	518	441	456	458	474	407	463
66	366	451	413	561	476	489	491	510	441	496
67	382	488	439	606	515	525	528	547	479	530
68	400	527	466	653	557	567	569	585	520	569
69	418	571	496	702	601	614	616	624	564	613
70	439	618	529	753	649	667	669	665	612	664
71	461	669	564	807	702	725	730	708	668	724
72	485	721	603	861	759	788	797	753	718	790
73	511	776	644	919	819	854	871	803	778	802
74	542	836	689	982	885	924	953	856	840	944
75	579	900	737	1048	956	1002	1042	913	904	1030
76	624	960	790	1119	1032	1088	1135	977	972	1121
77	681	1031	852	1194	1115	1179	1231	1045	1041	1221
78	764	1102	929	1274	1204	1275	1317	1117	1113	1331
79	878	1200	1017	1358	1300	1374	1399	1191	1185	1451
80	101	130	113	145	140	147	148	127	126	157
81	117	141	125	154	151	155	157	134	133	169
82	134	152	139	164	163	162	167	142	140	182
83	152	164	155	175	176	170	178	148	147	197
84	170	177	171	186	190	179	189	155	155	213
85	190	191	187	198	206	190	200	162	165	230
86	211	206	201	211	224	204	210	170	176	249
87	233	222	215	224	244	221	220	181	190	269
88	254	240	229	238	268	240	228	196	206	291
89	271	259	242	253	295	259	235	217	225	314
90	291	280	259	268	327	280	242	243	249	339
91	314	304	279	284	364	303	251	276	280	366
92	343	328	316	301	408	327	260	314	315	395
93	381	354	372	319	457	353	274	359	360	426
94	438	382	458	327	513	381	290	410	411	460
95	516	413	580	375	571	411	308	467	469	497
96	627	446	746	500	632	444	328	530	535	537
97	775	482	1000	750	722	480	347	599	610	580
98	1000	521	...	1000	804	518	401	674	695	626
99	...	563	...	...	1000	560	477	755	794	676
100	...	...	...	...	...	...	...	...	...	...

Art. IV.—CURRENCY OF THE UNITED STATES.

To the Editor of the Merchants' Magazine:—

The currency of the United States consists of all the metallic money not in absolute hoards, and the sum of the immediate liabilities of the banks, except the coin in their coffers. The sum total of currency in money and bank debt is *permanently* the same as would be present in the nation and be offered, or in readiness to be offered, in gold and silver, in exchange for commodities and property, and in the payment of debts. When it exceeds this the course of exchange is against us, and money runs away. Buried treasure, or money so absolutely withdrawn from business and from circulation, as to have no influence upon the owner's mind in directing his expenditure, is not currency; it is an absolute hoard, having no more effect upon prices or upon business than if it did not exist. But we must not confound this miserly store with the stocking deposit of the Dutch farmer, for example; which, although a reserve fund, influences his expenditure, and, as there is more or less of it, induces him to hold his commodity at a higher, or sell it for a lower price. The proportion of money thus at rest, in relation to the volume of currency, is not greater than the proportion of commodities at rest, in relation to the whole circulating property which necessarily remains on hand waiting the right customer or a satisfactory price; and the line between the currency and the hoard is not more imperfectly defined than that between the property in and out of circulation. There is always a considerable quantity of property not in circulation, that is to say, not offered for sale, that some large price would tempt the owner to part with, and there is about the same proportion of money in idleness that may be tempted into action by offering for it a sufficient quantity of property. These two opposite exchangeable values neutralize each other.

We have, then, a controlling measure of price in the volume of currency, the public instrument of exchange. As that volume increases in relation to the circulating property, the value of money falls in a general or average rise of prices; and as it decreases in relation to the circulating property, the value of money rises in a general or average fall of prices. So far as price is concerned, of course the effect is the same if the circulating property increases or diminishes in relation to the volume of currency; for as it increases in quantity its price falls, and as it diminishes in quantity its price rises; but it is not by any means the same in regard to value or wealth; for the variation in the volume of currency merely alters the value of money, it does not affect the absolute value of other property, and the nation is just as rich with little money and low prices, as with much money and high prices; but when the property of the country diminishes in quantity the public wealth declines, although prices rise; and when the property increases in quantity the public wealth increases, although prices fall. This is more apparent in an isolated community or nation, such for example as Japan has been for two centuries past. Every nation is quite as well off with little money as with much; but a commercial nation or community, such as Japan has now become, is vastly better off with the less money or more limited currency. Japan, with a limited currency, having a plenty of circulat-

ing property, has now the most valuable money in the world; it is valuable because of the quantity of property it will exchange for, and nothing but war or non-intercourse can prevent her from becoming an immense exporting nation. I think Europe and America will be astounded at the extent of production, activity of business, and increase of wealth, in Japan in a very few years, if the empire escapes internal dissention and external war.

It is the quantity and quality of cultivated land, dwellings, warehouses, ships, steamers, factories, schools, utilities of all kinds, and everything that contributes to human enjoyment, which constitute wealth; this wealth is the same in value at any price; it is not, therefore, of the least importance what volume of currency we possess, so that the coins are not too diminutive or too large for convenient use, excepting the less currency the better for the convenience of handling, and because where there is the least currency relatively, money will buy the most, and where money will buy the most, business will go. As with individuals so with nations; where the best bargains are to be had customers are plentiest and make the largest purchases. What we want, then, is to increase our stock in trade and not our currency; for money itself will come fast enough by the increase of commodities; no earthly power and no contrivance can keep it out of the country, excepting this that we employ, of cheapening it with an admixture of fiction. The little child, soon as he learns the meaning of a cent, knows enough to go to the shop where he can get the most taffy for his money; and when he grows to manhood he pursues the same simple principle in buying goods; but the sophistication of the currency system blinds him to the fact that the increase of currency and cheapening of money locally by his community, more than elsewhere, adds cost to his goods, enhances their price without increasing their value, and drives his customers into other shops, in other cities, or in other countries. The cheapening of money is a local loss of business and wealth, infallibly.

The effect of change in the volume of the currency follows an immutable law, however delayed by longer or shorter maturing credits, or however obscured to the mind of the unpracticed observer. It is therefore a matter of the greatest importance to know what the currency is and where to look for it.

We must look for it precisely where it would rest if the whole were exclusively metallic, to which volume it must ultimately return from every aberration; the true money or specie measure being determined and marked by the par of exchange on London of 9½ per cent, or $4 86 65 to the pound sterling. It will be observed, that with a pure metallic currency, the banks could not be under demand liabilities, either to the public or to each other, without coin in hand dollar for dollar against them; each debtor bank must therefore hold the coin; so that the balances due *to* banks, as well as *to* individuals, are *currency* occupying the place of coin, and the balances due *from* banks, as well as *from* individuals, are loans. Thus, taking the returns at Washington, with an approximate estimate of the amount of specie in circulation outside of the banks, I find the national currency, with a proper nomenclature, as follows, nearest to January 1, 1860:—

Bank notes in circulation	207,102,477	
Bank credits inscribed for discounts without money..	170,207,562	
Bankers' credits in California inscribed for discounts without money, estimate	2,000,000	
Balances due to banks	55.932,918	
Total of *debt currency*, that is, currency exceeding the money in the nation		435,242,957
Bank deposits absolute in specie	83,594,567	
Government treasury, including balances at credit of disbursing officers, specie	10,160,000	
In circulation among the people including bankers in California, estimate	84,002,476	
Total of money in the currency		177,757,043
Total currency of the nation		$613,000,000

IMMEDIATE LIABILITIES OF THE BANKS.

Debt currency, as above		$435,242,957
Absolute deposits, as above	$83,594,567	
Absolute deposits with California bankers, say	2,000,000	
Money in banks		85,594,567
Total of immediate liabilities		$520,837,524

It follows that the ratio of their money to their immediate liabilities is as 16.43 to 100. The ratio of money, outside of the hoards, to the total currency of the nation, is as 29 to 100; and this indicates the method of doing business; the exchanges at wholesale and retail being effected approximately with money 29 per cent, and debt 71 per cent; besides some that are made by the direct barter of commodity for commodity, without the intervention of debt or money. Obviously debt must be created and discounted to bring the debt currency into existence, and it is kept alive by continued renewal or *kiting* of the notes and bills of customers, against the notes and inscribed credits of the banks. The bank debt is, therefore, merely a portion of the circulating debt of the community, which compels the exchanges to pass through a circuit of debt and credit, by removing so much money from the country, which circuit would otherwise be made with money. This circuit is made by the transfers of raw material, and articles partially and wholly finished, through the hands of manufacturers and tradesmen to the consumers, and the return of the consumer's commodity or produce to close the transaction, when the two producers and consumers are mutually paid. Approximately these transfers are five each way; so that we cannot be far wrong in estimating *ten* exchanges to the circuit. Consequently we maintain a commercial debt upon the above figures of $4,352,000,000, or ten-fold the sum of the *debt-currency*, that need not and could not exist with a currency exclusively of money. Every merchants' stock of goods greatly exceeds the sum of currency he retains on hand; and this law of the exchanges in the circuit of money seems to determine the ratio of goods offered for sale, with other circulating property, to be approximately as 10 to 1 of the currency throughout the country.

So completely has the idea of money in the debt currency taken possession of the public mind, that it is difficult for people to comprehend how the above incubus of debt is created, or why there is any more of

it than would exist with a money currency. But money is a value purchased with another value in goods, and comes in return for merchandise sold to California and to other countries; debt has no part in its creation. The debt currency is not a value; it is a fiction of money manufactured virtually out of nothing, and is, when created, like every other debt, in excess of all the money and property in the world. An illustration will show how this worse than useless load of debt and embarrassment is entailed upon us. You have 100 yards of cloth for sale at $5 per yard that I want; and I have 2,500 pounds of wool for sale at 20 cents per pound that you want; either commodity amounting to $500. Simple barter would effect the exchange in the most economical manner, and satisfy us both, without debt or embarrassment; but we do not know each other's wants, and do not meet in the market; a middle man or merchant is therefore necessary to us both. If he has $500 of money, as he would have under a money currency, to pay for your cloth that you can pay for my wool, the exchange may be effected without debt or delay of settlement. It is triangular barter; gold, a third commodity of value, being employed as a medium of exchange; but, by the present system, we expel the gold, and thence comes the necessity of debt to create the debt currency and maintain the banks. A merchant gives his note for your cloth, and the same or another gives his note for my wool; then, according to the present custom of making the utmost possible use of banking, you give your note for the wool, and I give my note for the cloth; and now the bank is ready to *accommodate* all parties in accommodating itself. You and I get the merchant's notes discounted; he gets our notes discounted, and the bank gives in exchange—what? Certainly not money, for that yields no profit; it must lend what has no existence, and make a currency of its debt, over and above its money and capital, on which to charge interest as money, to make dividends; of course, it lends its debt in the form of notes or inscribed credit. You and I now owe $500 each; the merchant owes $1,000, and the bank owes $2,000; and here, on $1,000 of value, by reason of the absence of $500 of money in the currency, is $4,000 of debt created, more useless and unnecessary than a fifth wheel to a coach; $2,000 of it is *debt currency* which infallibly drives from the country $2,000 of gold, and compels the next traders to go through the same operation of running in debt to effect their exchanges. And what capital is employed in these transactions? Clearly not a dime but yours and mine; your cloth and my wool: our capital maintains the merchant and the bank, and all their clerks and rent and charges; we are entangled in a useless debt, with the fluctuating values of a currency continually expanding and contracting to accommodate the cupidity or necessities of the bank, and we run the risk of bankruptcy, out of the proceeds of our own labor, which, under a money currency, would have been exchanged without any risk whatever. Every time the cloth or the wool is exchanged in its progress to the consumer, more debt and more currency of the same sort are created, and an oppressive mass of debt is thus built up and maintained to expel money, postpone payments, and embarrass everybody.

There is no objection to the merchant in this business; he is a necessary and economical agent in finding and opening markets and effecting exchanges, securing to the producer uninterrupted employment at home; and, in transferring a commodity from where it is of less, to where it is

of greater, value, he performs a service equivalent to the production of so much value; employing labor and tools of wood, iron, wind, steam, &c., differing in form but not in principle from those employed by the producer himself. Indeed, it is to the merchant we owe the variety and increase of employments that maintain labor and produce wealth; but to the bank of the debt system we owe nothing but obstruction to labor, loss of national capital, bankruptcy, and distress. It is the system, and not the banks, that I condemn, and it is the people, not especially the bankers, who are responsible for it; but it is most especially the duty of the economist and the legislator to speak plainly, and put public opinion right upon this momentous subject.

I have taken occasion to say in these pages repeatedly that commerce consists of an exchange of material and immaterial products upon the simple principle of barter; commodity pays for commodity, and service for service, and the nearer we come to a direct exchange the less is the tax upon both producer and consumer, and the better it is for the community. Merchants and money are necessary to an economical accomplishment of exchanges, but not mere speculators nor a currency of debt. If the natural law of value be not interfered with, business will provide the true and necessary volume of currency for itself in real money; less we cannot have permanently, and more we cannot permanently retain; the debt currency does nothing but sink the value of money, and drive so much money away; it is a false intruder of the most damaging character.

The population of the United States has been estimated of late at 32,000,000; on this estimate the currency as above would be $19 16 *per capita;* but the progress of the census of 1860 thus far seems to indicate that this is an overestimate of the population; probably the currency at the beginning of the year was $20 for each inhabitant, approximately.

The estimate of $84,000,000 of specie outside of the banks is, I am aware, very much below that of other writers, but I feel very confident there is not over $200,000,000 of money in the whole nation, including the California currency and the hoards. Estimates in round numbers very generally exceed the truth, and are often wild. In the inveterate paper-currency States, like those of New England, where one dollar notes are in circulation, it is rather difficult to find change for a dollar in the hands of any family; the omnipotent bank note of one to five dollars is everywhere, and is counted upon to buy the smallest commodity; there is a constant running about for change from house to house, and the till of the retailer is poorly supplied. There seems to be a penchant for *shin plasters* in New England, and money flees from them as from a pestilence. I doubt if there is an average of three dollars of real *money* to a family in the State of Massachusetts outside of the banks, including the money-drawers of the shops, sums in the hands of money dealers, and all reserves outside of the hoards; of hoards, there are a few among the foreign population. In the South, and of course in those States where the circulation of bank bills below the denomination of five dollars is prohibited, there is some money to be found; but I defer considerably to official estimates in placing the average so high as *fifteen* dollars to each family in the nation, deducting the slaves, and make no doubt it is an overestimate sufficient to counterbalance any amount the slaves may have in possession.

Supposing we have a free population of 28,000,000—an extravagant estimate, I think—and allowing five members to each family, there are 5,600,000 families, to whom I assign $15 each, making $84,000,000. There must be large reserves—not hoards—somewhere, and large sums in the hands of money dealers, travelers, and immigrants, to make up so large an amount as this, outside of the banks; for there is a bank wherever a bank can be planted throughout the country, to gather all the money in its neighborhood. The New York *Journal of Commerce* cyphers up $283,000,000 in the whole country. I cannot conceive where they find it; but I believe Mr. Snowden of the Mint thinks with me, that $200,000,000 is a large estimate. At any rate, I do not think the *money* in the *currency* can exceed the sum I have named. With such a leak as there is in the course of exchange, that we keep almost constantly adverse to ourselves, which is neither more nor less than keeping money cheaper here than elsewhere, specie must run out in ways that cannot be discovered, or brought within the range of statistical investigation.

Some writers have placed promissory notes and bills of exchange in the category of currency, but it is altogether a mistake; their affinity is with circulating property, not with money. They may be exchanged for property, and so might the property upon which they are drawn; and if offered for sale for money they are still more like property; they are exchanged against money, and are more likely to have the effect of increasing the exchange value of money than of reducing it, as they would if they were of the nature of currency. They are, however, neither money, nor currency, nor property, but mere records of an unfinished bargain; the purchase money is not paid, and these are memoranda or written evidences of what the debtor is to do to complete the contract. One species of property exchanges for another; this is barter, the fundamental principle of trade; and when promissory notes and bills of exchange are exchanged for money, they take the position of property as essentially different from money as the goods that were delivered for them, or for the fund upon which they are drawn.

We must clearly understand, and I therefore repeat, that the currency is that, and only that, which ought to be money, and would be if not interfered with by an abnormal legislation that authorizes debt to take its place. The public mind should be disabused as to the existence of capital or value in promissory notes and bills of exchange; then people would comprehend that there is neither money, capital, nor value in the debt currency erected upon them, or into which they are converted, nor in the so-called "bank capital," which stands upon no other foundation. He who buys 1,000 barrels of flour for $5,000, holds the capital in the flour; and if he pays for it in gold, it is an exchange of capital; he has so much more of one commodity, and so much less of another—more flour and less gold—while the flour seller has so much less flour and more gold. If, instead of paying money, the buyer gives his note for the flour, it is preposterous to say or suppose that he creates a value of $5,000, and that the community are in possession of $10,000 of capital because he has run in debt $5,000, and made his note for the same. And now, if the note be exchangd for gold, or hemp, or cloth, or any other property, there is only a legitimate use of credit in the transaction; it may be exchanged fifty times for value received in each transfer without affecting the value of money, or doing any harm; the payee or original holder of the note

simply receives gold, or hemp, or cloth, or some other property in exchange for his flour; the note is all the while nothing but a written evidence of the debtor's verbal promise; adding nothing to the volume of gold, or of currency equivalent in use to gold, or to property of any kind. In effect, the whole is legitimate barter; flour being exchanged for gold, and gold for hemp, and hemp for cloth, &c., through the entire circuit of exchanges. I wish to direct attention particularly to this point, and ask for it the most careful consideration, that there is not in this note an increase of anything but debt; there is nothing in it of the nature of an increase of money, currency, or property, and the transfers effected, as I have described, are merely transfers of pre-existing money or property.

But now let us suppose that the note is discounted in bank, and the bank, instead of delivering the material equivalent, money, that is, gold or silver, for the proceeds of the discount, issues its notes, or inscribes a credit to be checked upon as money in excess of the money in its coffers; it is then a very different thing; the act is the creation of *debt currency*, for which there is no material equivalent; there is no such money or value in existence as the bank promises to pay; and, therefore, although it receives an obligation to return something for nothing, at the ultimate settling day the thing cannot be done; if the bank gets the material equivalent, it belongs to some other obligation that it is required to meet, and somebody must break for it when the bank can no longer maintain the fiction in circulation. The continued existence of this fiction in the currency is absolutely necessary to maintain the price it created in the circulating property, and support the obligations of debt in the circuit of exchanges made by and resting upon it. Its withdrawal by a set-off between the two debtors, the bank and its customer, in the contraction of loans, is inevitable bankruptcy to all these obligations that must fall somewhere upon wholesale or retail dealers within the circuit of its operation, for it is the annihilation of so much currency.

But when it is created, being accepted without bargain or question as money, it degrades the value of all the capital of the community invested in money, precisely as much as it adds to the volume of the currency; this is the sure effect of an increase of bank loans. Obviously, if the bank loan is not increased by the discount; if it be merely relending a fund previously in the currency and just paid in, there is neither an increase of currency nor degradation of the value of money in the discount transaction; but I am treating of the principle of the thing, the construction of the debt currency, and I aver that we might as well make a free gift of so much gold to some other portion of the world, as to organize this note into a currency equivalent in use to money, without a special reserve of coin in the bank, dollar for dollar, against the sum placed at the disposal of the party obtaining the discount; it is converting fiction into a currency of *price* that is not *value*, and is a dead loss of capital to the nation, excepting so far as it adds to the price of our products in foreign countries, which is inappreciable, as the expelled coin flows into the great ocean of the currency of the world. Its effect is entirely adverse to ourselves, because, by raising general local prices, it checks our production and exports, and brings returns in foreign goods with precisely the whole amount of the fiction of money added to their price, which we must pay in the solid value of gold and silver. Your

constant readers will excuse the repetition of this truth, which I have presented in previous numbers of this Magazine; it must be repeated, "line upon line and precept upon precept," until our people are fully awakened to its vast importance. It is the absence of money and value in the currency, and of capital thus expelled from the country, that is the cause of the cruel bankruptcy that cankers the life of our business men.

With 613 millions of currency at the beginning of the year, sterling exchange was at par, or somewhat in our favor; we were shipping products but no money. Now, late in August, sterling exchange rules against us, and we are shipping money, twice as much as we receive. Are we short of exportable produce? Certainly not; there is an abundance of it that we want to sell; but we have expanded the currency and cheapened money; 613 millions is no longer the volume of the currency. The city banks of New York and Boston alone have since increased their loans $11,000,000, and the Northwestern States are breeding red dogs and wild cats as fast as possible; new banks are going into operation in all directions, and there is a general expansion of the debt currency, with the single exception of New Orleans, while the increase of gold would expand the currency more than fast enough. There is now currency enough to maintain the prices of many exportable products above the exporters' limits, and to turn the export demand to that extent upon gold and silver—just enough of currency to sink the value of money for the amount of the export of specie. The volume of currency is now above the specie measure, and no human statute, unless by destroying a portion of the debt currency in the contraction of loans, can prevent the excess from being exported in solid money. Who does not see, if we exported merchandise to the amount of $50,000,000 instead of gold, that we should have room for the reproduction of 50 millions more of merchandise; and that we *should* reproduce it, leaving the money in the currency and so much more capital in the nation, than we shall have by the present destructive policy at the close of the year? We want the business of exporting this 50 millions and of producing 50 millions more of merchandise, and the relief from debt that would come with the accession of so much capital.

But the so-called *balance of trade* is now against us. The "balance of trade" is a chimera; money is cheapened by an increased supply like beef, and is exported like beef when it is cheaper here than in the foreign market. It is perfectly in the power of a few gentlemen who control the New York city banks, to turn the so-called balance of trade in favor of the United States in six weeks, and, if judiciously managed, without any considerable disturbance of prices; excepting perhaps among the fancy stocks in Wall-street. The clear reduction of six or seven millions of bank loans would reduce the volume of currency one per cent, and general or average prices one per cent, but for the continued supply of California gold; and even with that, a reduction of seven millions in six weeks, would so enhance the exchange value of money as to reduce sterling exchange below the par rate of 9¼ per cent. This is not a mere conjecture, but a matter in which the country has had practical and ample experience, and which intelligent bank directors understand perfectly well; then the "balance of trade" would be in our favor, and we *must* export merchandise instead of money.

The vast power of regulating the value of money, and thence the commerce of the United States, is very properly delegated by the States to Congress in the constitution; it is the chief function of sovereignty, without which, the stipulation for regulating commerce, as well as that for maintaining the inviolability of contracts, is an utter nullity.* But, by reason of the neglect of Congress, this great function is given over to the cupidity of the banks; and to suit first their profits and then their necessities, the value of money is first degraded, then enhanced; the import of foreign goods is, by the same process, first stimulated, then checked; the production, as well as the export, of our domestic merchandise, is first diminished, then increased, inversely as the increase and diminution of the currency; the government revenue is first over supplied to a surfeit, then depleted to starvation; the people are first thrown into debt for a huge sum in *price*, and then compelled, by the inevitable fall in the money value of their assets, to settle the whole sum of *price* in their obligations, above *value*, in bankruptcy. Indeed, the chief object of the business of the nation, or of its conduct, seems to be first to make dividends for the banks, and then save them from the consequences of their cupidity in the suspension of specie payment; while the prosperity and happiness of the people are of secondary consideration, or of none at all. This mighty power over the public welfare is now practically exercised by a few gentlemen who control the discounts of the leading banks of the city of New York, the creditor city and center of the exchanges of the nation.

It would be no hardship to the banks of issue to be converted into "savings banks," and compelled to borrow all they lend in excess of their capital, paying interest on deposits, and making their support and profit out of the difference between the interest they pay and the exchange and interest they receive; because there would then be no limit to the loans in excess of their capital; then they would get *money* without creating a fictitious currency. I presented a statement of this principle of banking in your issue of May last, showing its practicability and profit. The public would be protected in this principle by the bank capital, of which there is none in the present savings banks; and the capital would be *real*, which, to a very great extent, it is not in the present banks of issue. It is in effect *bullion banking*, although the circulation may be in checks and certificates, the deposits being borrowed on stipulated time, and the loans being carefully averaged to be returned before the deposits fall due. There could be no contraction of the currency in this principle of banking; on the contrary, there would be a continual and normal increase of the currency by and with the increase of circulating property; the only way in which it can be steadily or profitably increased. The banks would be under no immediate liabilities without coin in reserve, dollar for dollar, to meet them; for the undrawn loans would be retained on special deposit, with the fund belonging to the circulating certificates, in coin not to be loaned again, while its ownership exists in the loans and certificates. It puts an end to the present unjust and ruinous principle of lending the same dollar several times over, upon which

* Strictly speaking, no human government can regulate the value of money, excepting by restraint upon any interference with it. Money may be diverted from its true course, or obstructed in its natural flow, like the current of a river; and it is vitally important in the matter of money that government shall prevent such diversion and obstruction. It can have no other power to regulate the value of money. Coinage is simply inspection.

the banks now make their support and profit, and which is absolutely necessary to their existence under the present system.

Finally, it would soon add $450,000,000 *of real money to our working capital; make the United States, in excess of imports, the greatest exporting nation on the globe: put an end to our "panics" and commercial revulsions, and New York would infallibly become the center of the exchanges and the leading city of the commercial world.*

Such is the vast importance of this currency question. If Congress should think that existing charters, which completely override the constitutional power of regulating commerce and the value of money, are still too sacred to be annulled, they can at least put a stop to their further extension, and to the creation of any more debt currency, by prescribing a limit to the bank loans of each State, and prohibiting the establishment of any more banks to create a fiction of money and lend what has no existence.

I trust the government will never again attempt to be concerned in the business of banking; but, in the exercise of their constitutional control over commerce and the currency, Congress can further the business of bullion banking, which is the only means of regulating, and the only security for both, by establishing a safe depository for coin in the hands of commissioners, independent of the treasury, and beyond the control of the treasury officers, with authority to issue certificates therefor of convenient denominations to furnish a portable, secure, and convenient national currency, to save the loss by abrasion and other cost of handling and of transporting gold. The government must be responsible for the safe keeping of the coin, dollar for dollar, against all outstanding certificates, with a positive restriction of its power to remove the deposits from the custody of the commissioners. The certificates should be payable only where the deposit for the same is made, leaving to bankers and merchants the business of removing the coin on presentation of the certificates, when the same shall be required. But the bullion or coin must be *kept*, at any cost of vaults and bolts and responsible custodians, while its ownership circulates; otherwise it is utterly lost to the nation.

This important subject needs a leading mind in Congress. Is there not some member who will make it his specialty and attend to it? In no other way can he do his country such essential service. C. H. C.

JOURNAL OF MERCANTILE LAW.

THE BOMBARDMENT OF GREYTOWN.

In the United States Circuit Court.—September 14. Before Justice NELSON.

Calvin Durand *vs.* George N. Hollins.

NELSON, C. J.—This is an action of trespass brought by the plaintiff to recover damages for the destruction of property by the defendant at San Juan del Norte, Nicaragua, otherwise called Greytown, on the 13th July, 1854.

The defendant, among other defenses, has pleaded that he was a commander in the navy of the United States, and as such commanded a vessel-of-war called the Cyane, and was bound to obey the orders of the President of the United States, and of the Secretary of the Navy; and that by virtue of lawful and public orders of the President and Secretary, he did cause the place called Grey-

town by the naval force of the United States to be bombarded and set fire to, and which are the same alleged trespasses set forth in the declaration.

There is also a plea setting forth in addition to the facts above stated, that the community at Greytown had forcibly usurped the possession of the place, and erected an independent government, not recognized by the United States, and had perpetrated acts of violence against the citizens of the United States and their property; and having on demand for redress, refused it, the defendant, under public orders from the President and Secretary, as a commander in the navy, and then in command of the Cyane, did cause the place to be bombarded and set on fire, as he lawfully might for the cause aforesaid.

To these pleas the plaintiff demurred, and the defendant joined in demurrer.

The principal ground of objection to the pleas, as a defense to the action, is that neither the President nor Secretary had authority to give the orders there relied on to the defendant, and hence that they afforded no ground of justification.

The executive power, under the constitution, is vested in the President of the United States, (Art. 11, Sec. 1.) He is Commander-in-Chief of the Army and Navy, (Sec. 2.) and has imposed upon him the duty to "take care that the laws be faithfully executed," (Sec. 3.) In organizing a government under the constitution, an executive department, called the Department of Foreign Affairs, was established, and a secretary placed at its head, to execute such duties as shall from time to time be enjoined on or intrusted to him by the President, agreeable to the constitution, relative to correspondences, commissions, or instructions to or with public ministers or consuls from the United States, or to negotiate with public ministers from foreign States or princes, or to memorials or other applications from foreign public ministers or other foreigners, or to such other matters respecting foreign affairs as the President shall assign to said department; and furthermore, that the said secretary shall conduct the business of the said department in such manner as the President shall from time to time order or instruct. (Act of Congress, July 27, 1789, Sec. 1.)

By a subsequent act, this department has been denominated the Department of State, and the head of it Secretary of State.

There was also established another executive department, denominated the Department of the Navy, the chief officer of which is called the Secretary of the Navy, whose duty it shall be to execute such orders as he shall receive from the President relative to the procurement of naval stores and materials, and the construction, armament, equipment, and *employment of vessels of war*, as well as all other matters connected with the naval establishment of the United States. (Act of Congress, April 30, 1798, Sec. 1.)

As the executive head of the nation, the President is made the only legitimate organ of the general government to open and carry on correspondence or negotiations with foreign nations in matters concerning the interest of the country or its citizens. It is to him, also, the citizens abroad must look for protection of person and of property, and for the faithful execution of the laws existing and intended for their protection. For this purpose, the whole executive power of the country is placed in his hands, under the constitution, and laws passed in pursuance thereof; and different departments of government have been organized, through which this power may be most conveniently executed, whether by negotiation or by force—a Department of State and of the Navy.

Now, as it respects the interposition of the executive abroad, for the protection of the lives or property of the citizen, the duty must, of necessity, rest in the discretion of the President. Acts of lawless violence, or of threatened violence to the citizen or his property, cannot be anticipated, and provided for; and the protection, to be effectual or of any avail may, not unfrequently, require the most prompt and decided action. Under our system of government the citizen abroad is as much entitled to protection as the citizen at home. The great object and duty of government are the protection of the lives, liberty, and property of the people composing it, whether abroad or at home; and any

government failing in the accomplishment of the object, or performance of the duty, is not worth preserving.

We have said that the interposition of the President abroad for the protection of the citizen must necessarily rest in his discretion; and it is quite clear that, in all cases, where a public act or order rests in executive discretion, neither he nor his authorized agent is personally civilly responsible for the consequences.

As observed by MARSHALL, Ch. J., in Marbury *vs.* Madison, (1 Cranch, 165.) "By the constituton of the United States, the President is invested with certain important political powers, in the exercise of which he is to use his own discretion, and is accountable only to his country in his political character, and to his own conscience. To aid him in the performance of these duties, he is authorized to appoint certain officers, who act by his authority and in conformity with his orders. In such cases, their acts are his acts; and, whatever opinion may be entertained of the manner in which executive discretion may be used, still there exists, and can exist, no power to control that discretion. The subjects are political; they respect the nation, not individual rights, and being intrusted to the executive, the decision of the executive is conclusive."

This is a sound principle, and governs the present case. The question whether it was the duty of the President to interpose for the protection of the citizens at Greytown against an irresponsible and marauding community that had established itself there, was a public political question, in which the government, as well as the citizens whose interests were involved, was concerned. and which belonged to the executive to determine; and his decision is final and conclusive, and justified the defendant in the execution of his orders through the Secretary of the Navy.

Judgment for the defendant.

ALLEGED FRAUD ON THE REVENUE.

In the United States District Court. Before Hon. Judge BETTS. The United States *vs.* 126 bales of padding.

The libel in this case alleged that Collector SCHELL, in September last, at the city of New York, seized, as forfeited to the United States, the 126 bales of padding imported into the port of New York subject to duties and entered; that an invoice was produced and left with the Collector. That upon an examination and appraisement the packages and invoice were found to have been made up with intent, by false valuation, extension, and otherwise, to evade and defraud the revenue of the United States in this, that the goods contained in the packages were valued in the said invoice at a less price than the actual market value or wholesale price abroad of the goods at the period of exportation to the United States, thereby intending to defraud the United States by paying less duty on said goods than the amount which the same were required by law to pay on the importation thereof into the United States. Also that the goods were invoiced at a much less price than the actual costs thereof, with intent to evade and defraud the revenue; and that the goods, by reason aforesaid, became forfeited to the government. The libel prayed for a decree of the court condemning the goods. GEORGE BROWN, of the firm of SMIETON & BROWN, intervening for JAMES SMIETON and others, of Dundee, in Scotland, appeared and claimed the merchandise, averring that his said firm were in the possession thereof, at the time of the seizure by the Marshal, as agents of JAMES SMIETON and others, the owners. The claimant, GEORGE BROWN, also put in an answer by JAMES B. CRAIG, Esq., his procter, claiming that the merchandise did not become forfeited, as alleged. A consent was given by the proctor for the claimant that a decree of condemnation and forfeiture be entered, and the merchandise be delivered to the claimants, upon payment by them of $18,300 25—the appraised value—into the registry of the court. The United States District Attorney consented that the merchandise be discharged from custody, upon the claimants filing sworn

claim, paying into the registry of the court $18,300 25—being the appraised value of the same—and consenting to a decree of condemnation and forfeiture.

The court entered a decree, which, after reciting that the goods having been attached by the Marshal, and no defence to the libel of information having been interposed, and the claimants having paid into the registry of the court $18,300 25, as the appraised value of the goods, on filing consents of United States District Attorney and proctor for claimants, ordered that the goods be condemned as forfeited to the United States, and that out of the proceeds paid by the claimants into court the clerk pay the taxed costs, and pay the balance of the money to the Collector, to be by him distributed according to law. Amount paid to Collector $17,962 75.

THE SCHUYLER FRAUDS AND THE NEW HAVEN RAILROAD STOCK.

In the United States Circuit Court.—September 14. Before Justice NELSON.

Charles Illius *vs.* the New York and New Haven Railroad Company.

NELSON, C. J.—The question in this case is, whether the defendants are responsible for the spurious certificates of stock issued by SCHUYLER, the president of the company, and transfer agent of the stock, which certificates have passed into the hands of a bona fide holder for value.

The question has been twice before the Court of Appeals of this State, and after a very full and able examination, has been determined in the negative. (3 Kern. 599, Mech. Bank *vs.* New York and New Haven Railroad Co., and 17 N. Y. R., p. 592, New York and New Haven Railroad Co. *vs.* Schuyler, Cross, &c.) The action in the first case was founded on one of these certificates, and presented the question directly, raised in the present case upon the demurrers. It was also necessarily involved in the second case, and the principle of the first again affirmed. According to our view of the practice of the federal courts in similar and analogous cases, these courts follow the decisions of the highest State judicial tribunal, the question involved being one essentially of local law; and without, therefore, expressing any opinion upon the law of the case, we shall, in pursuance of the decision in the cases above referred to, direct judgment to be entered upon the demurrers in favor of the defendant.

ADVANCES ON COTTON.

The following cases before the United States Circuit Court of Rhode Island are interesting to the cotton trade:—

The Bank of the State of South Carolina *vs.* Bicknall & Skinner.

This was a suit in equity brought to compel the defendants to deliver up a quantity of cotton shipped to them for sale by MICHAEL LAGARUS, of Charleston, under whom the bank claimed, the complainants offering to deliver up to the defendants the bills accepted by them which had been drawn against the shipment. The bill sustained as to a portion of the specific cotton admitted to have been in the hands of the defendants at the date of the commencement of the suit, and decree for the plaintiffs accordingly.

The Bank of the State of South Carolina *vs.* Bicknall & Skinner and the Commercial Mutual Insurance Company.

The facts in this case were similar to those in the last-named suit, except that the cotton had been lost by the perils of the sea on the voyage from Charleston to New York. It had been insured by the consignees under an open policy, and the complainants claimed that they were entitled to the insurance money upon returning the bills accepted against the shipment. This claim was not sustained by the court, and the bill was dismissed.

COMMERCIAL CHRONICLE AND REVIEW.

PROGRESS OF BUSINESS—IMPORTS—EXPORTS—DOMESTIC PRODUCE—APPROXIMATION OF EXPORTS TO IMPORTS—EFFECT ON EXCHANGES—LARGER PORTION OF BREADSTUFFS—TABLE OF EXPORTS—GRAIN AT THE WEST—MILWAUKEE—CHICAGO—RAILROADS—RISE IN VALUES—ABSORPTION OF FUNDS—CAPITAL AT CALL—GRAIN FOR FREIGHTS—NO SPECULATION AT THE WEST—MONEY IN THE STOCK MARKET—BANK LOANS—CONTRACTION COMPARATIVE—LOANS ON THE MARKET—RATES OF MONEY—REMITTANCES—STERLING BILLS—RATES OF EXCHANGE—CURRENT OF SPECIE—GOLD SHIPMENTS—SPECIE IN THE CITY—ASSAY-OFFICE—MINT.

THE progress of business has been satisfactory since the commencement of the crop year. The cotton movement has been such as not to attract much money, and the grain export has been affected by the fluctuating news from Europe in regard to the extent of the damage done to the harvests. The general course of events has been to keep prices at rates which have allowed the produce to flow freely out, and, by so doing, to carry the exports of the port of New York to an extraordinary high figure. The summary of September trade, the details of which will be found in the usual tables annexed, has been as follows:—

	Domestic exports.	Total exports.	Imports.
1854	$3,772,124	$10,864,731	$14,266,888
1855	5,228,637	7,436,586	14,021,725
1856	7,045,202	11,860,800	15,309,400
1857	4,218,254	6,198,100	16,847,400
1858	3,521,992	7,135,800	15,473,300
1859	4,946,612	14,037,500	16,643,600
1860	9,232,931	13,658,700	16,260,500

The exports of domestic produce are nearly double those of the last year, and also of the average for September of the previous seven years. This large export has been composed of breadstuffs to a very considerable extent; but it is to be observed that the exports of specie are nearly as large as in former years except the last, notwithstanding the large exports of produce. It results from this that the exports of this port are gradually assimilating to its imports. Thus, in 1858 the exports for the month were forty per cent of the imports. In 1859 they were one-half the imports nearly, and this year they are ninety-five per cent of the imports. Such a state of the exchanges of this city cannot but lead to abundance of money, since the equalization of the local trade of the city, by larger exports of domestic produce, throws a larger surplus of bills, based upon the Southern exports, upon the market. This feature has been apparent during the nine months, and the following are some of the leading articles that make up the increase:—

EXPORT FROM NEW YORK OF SEVERAL ARTICLES OF DOMESTIC PRODUCE FOR NINE MONTHS.

Articles.	1858.	1859.	1860.
Flour.....bbls.	1,012,666	563,223	1,269,687
Wheat.....bush.	3,025,332	33,386	6,669,566
Corn	1,578,898	168,790	1,889,321
Beef.....tcs. and bbls.	48,604	65,074	79,911
Pork.....bbls.	57,025	103,652	91,570
Bacon.....100 lbs.	175,434	55,833	143,536
Lard	95,280	63,623	130,845
Cheese	28,110	50,000	187,609
Tobacco.....pkgs.	50,965	54,304	65,457
" manufactured.....100 lbs.	32,293	42,183	52,771
Tallow	17,055	17,701	94,915
Domestics.....pkgs.	45,319	59,626	75,904

The forward movement of grain continues without much affecting the price, since the supply is held to be very large, and so manifests itself in the extended movement at the West. The receipts of grain at Chicago, Milwaukee, and Buffalo have been as follows, to October 1 :—

	Milwaukee.		Chicago.		Buffalo.
	1859.	1860.	1859.	1860.	1860.
Wheat in flour..bush.	651,110	856,100	3,631,515	1,842,820	3,726,195
Wheat.....	3,263,617	4,377.247	8,060,766	9,115,433	9,850.469
Corn.....	131,366	90,124	5,401,870	14,101,415	9,850,905
Oats.....	296,002	136.887	1,757,696	1,181,409	899,106
Barley.....	70,347	75,626	652,696	321,205	99,958
Rye.....	15,630	23,004	283,514	193,690	35,065
Total.....	6,332,065	6,458,988	19,738,051	26,755,972	24,461,698

The supplies this year are for nine months, against those of the whole of last year. The result is a larger increase, and it has come forward to those primary grain ports, over the various railroads, at falling prices, since the quantities to be carried on the lakes have sent up rates of freight, while there has been no answering demand at the place of destination to sustain the prices to a rate corresponding with the enhanced rate of transportation. There has, therefore, not remained much over to the growers; but the grain sent forward has been applied to debts in a satisfying manner, if it has left little surplus towards new business. The abundance at the West is at all events satisfactory, since the wants of the South and East will be the more easily supplied. The moderate course of the crops coming forward in discharge of debts, without being accompanied by any speculative excitement that would attract much money. has had a tendency to keep money abundant on the seaboard, and the rates on short business paper are about the same as last year. At call there has been more demand for money, since the ease of the market aided the hopes arising from large crops, to promote a good deal of stock speculation, which has absorbed much money. In June, money at call was 4½ a 5, and is now 6½ a 7, a rise of two per cent. The rise which has taken place in railroad stocks is as follows :—

	June 15.			October 10.	
	Capital.	Price.	Value.	Price.	Value.
New York Central.....	$24,182,400	81	$19,000,000	90	$21,780,000
Illinois "	25,000,000	60	15,000,000	87	22,000,000
Erie.....	11,000,000	17	1,870,000	40	4,400,000
Hudson River.....	3,770,926	46	1,734,200	64	2,360,000
Harlem.....	4,217,100	12	530,000	20	843,400
Harlem, preferred.....	1,500,000	37	555,000	50	750,000
Reading.....	11,737,041	40	4,494,816	46	5,382.000
Michigan Central.....	6,057,840	46	2,760,000	78	4,200,000
Michigan So. and No. Ind.....	6,081,800	10	608,180	24	1,520,420
" " " Guar. Stock	2,893,800	23	667,000	50	1,446,800
Galena and Chicago	6,026,400	61	3,750,000	77	4,620,000
Cleveland and Toledo..... ...	3,343,712	30	1,010,000	47	1,551,000
Chicago and Rock Island.....	5,603,000	67	3,752,000	78	4,366,000
Milwaukee and Mississippi.....	3,696,693	5	175,000	15	525,000
Total....	$120,077,112	..	$55,906,196	..	$75,746,620
Average.....		45		62	

Thus the speculation has produced a rise of $20,000,000 in the market value of stocks, which, with the exception of the New York Central, pay no divi-

dends. These stocks had been all exceedingly depressed, and, to some extent, dead in the hands of the holders as a consequence of that depression. A sum of $20,000,000 has been added to their values, and, as a consequence, much of it has become active. This has, however, absorbed a great deal of money in the hands of the public, and gives employment to capital of banks and individuals at call. The basis on which this rise in value was brought about was the presumed improvement in general business that was to grow out of the large Western crops. The railroads were, it was hoped, to do a large carrying trade, as well of the crops to market as of return trade, as a consequence of the sales of that produce. That the railroads have earned more is true, and the Western roads show, some of them, a considerable increase in revenue. This increase, for a few months during which the bulk of the grain comes to market, is not an indication, however, of the earnings for the year. The large portion of the business of the roads in former years was derived from passengers who were engaged in railroad building, land speculation, and other employments. This may not return immediately, but the steady prosperity of the West may result more from the realization of crops at fair prices. The railroads are undoubtedly an important item in her welfare; but the cost of these roads, many of them, was run up, by extravagance and worse conduct, to points too high for a regular and healthy business to pay. During the depression of the past four years a good show has been sought by keeping down even necessary expenses, and the first returns of prosperity are required to make good the neglected repairs of the past two years, hence the dividends that are looked for fade in the distance in many cases. The market received a strong hint of that nature in the unexpected passage of the dividends of the Rock Island Railroad, after hopes of its payment had been entertained up to the last hour.

The absorption of money in the stock market, great as it is, has not materially affected the rate, although the bank loans have at the same time undergone a material decline. The highest point in New York city bank loans this year was August 25, and, as compared with the last year, the movement was as follows:—

	1857.	1858.	1859.	1860.
August 21.....	$116,588,919	$126,004,424	$119,541,070	$130,578,997
October 15.....	101,917,569	124,216,701	117,289,067	122,307,138
Decrease	$14,671,350	$1,787,723	$252,003	$8,271,758

This presents the curious fact that the bank curtailment this year has been half as much, in the business season, as that which accompanied the great panic of 1857, and which ended in suspension in the first week of October. The failure of the Artisans Bank accounts for $1,300,000 of the curtailment. There has been, undoubtedly, a considerable contraction of business attending the excitement of the presidential canvass, and the diminished demand for money for general purposes has resulted, while the supply on call has been the greater. There have been two loans negotiated: one of $450,000, five per cent, payable in fifteen years, of the State of New York. It was taken at 1.82 per cent a 3. A Floating Debt Fund Stock of the city of New York, opened September 18, 1860, redeemable in eighteen years, was taken at a range of 101.07 to 103.00.

The rates of money are quoted as follows:—

	On call. Stocks.	On call. Other.	Indorsed 60 days.	Indorsed 4 a 6 mos.	Single names.	Other good.	Not well known.
Jan. 1st, 1859.	4 a 4½	4 a 5	4 a 5	5 a 6	6 a 7	7 a 8	8 a 10
Feb. 1st.....	5 a 6	6 a 7	5 a 6	6 a 7	7 a 7½	8 a 9	9 a 10
Mar. 1st.....	4 a 5	4½ a 6	4½ a 5½	5½ a 6½	6 a 7	7 a 8	9 a 10
Apr. 1st.....	4 a 5	5 a 6	5 a 5½	6 a 6½	6½ a 7	8 a 9	9 a 10
May 1st.....	5 a 6	6 a 7	6 a 6½	6½ a 6	7 a 9	9 a 10	10 a 12
Jun. 1st.....	6 a 7	7 a 8	6½ a 7	7 a 8	8 a 9	9 a 10	10 a 12
July 1st.....	5 a 6	6 a 7	6½ a 7	7 a 7½	8 a 9	10 a 12	12 a 15
Aug. 1st.....	6 a 7	7 a 8	6½ a 7½	7 a 8	8 a 9	11 a 13	12 a 15
Sept. 1st.....	5½ a 6	7 a 8	6 a 7	7 a 7½	8 a 8½	11 a 14	12 a 16
Oct. 1st.....	5½ a 7	6 a 7	6½ a 7	7 a 8	8 a 9	10 a 12	12 a 18
Nov. 1st.....	5 a 5½	6 a 7	6½ a 7½	7½ a 8	8½ a 9½	12 a 15	12 a 18
Dec. 1st.....	5 a 5½	6 a 7	6 a 7	7 a 8½	8 a 9	9 a 10	12 a 18
Dec. 17th.....	5½ a 6	6 a 7	7 a 7½	7½ a 8½	8 a 9	9 a 10	12 a 18
Jan. 1st, 1860..	6 a 6½	6½ a 7	7 a 7½	7½ a 8½	7½ a 8	9 a 10	12 a 18
Jan. 15th.....	7 a 7½	7 a 7½	8½ a 9	9 a 9½	9 a 10	10 a 11	15 a 20
Feb. 1st.....	6 a 6½	7 a 7½	8½ a 9	9 a 9½	9 a 10	11 a 12	15 a 20
Feb. 15th.....	5 a 6	6 a 7	7 a 7½	7½ a 8	8½ a 9½	10 a 12	15 a 18
Mar. 1st.....	5½ a 6	6 a 7	7 a 7½	7½ a 8	8½ a 9½	10 a 12	15 a 18
Mar. 15th.....	5 a 5½	5½ a 6	6 a 7	7½ a 8	8½ a 9½	10 a 12	15 a 18
Apr 1st.....	5 a 5½	6 a 6½	5½ a 6	6 a 6½	5½ a 7½	9 a 10	11 a 13
Apr. 15th.....	5 a 5½	6 a 6½	5½ a 6	6 a 6½	6½ a 7½	9 a 10	11 a 13
May 1st.....	5 a 5½	6 a 6½	5 a 6	6 a 6½	6½ a 7½	9 a 10	11 a 12
May 15th	5 a 6	6 a 6½	5 a 6	6 a 7	6½ a 7½	9 a 10	10 a 12
June 1st.....	4½ a 5	6 a 6½	5 a 6	6 a 7	6½ a 7½	8 a 9	9 a 10
June 15th	4½ a 5	5 a 6	4½ a 5	5 a 5½	5½ a 6	6 a 7½	8 a 9
July 1st.....	5 a 5½	5½ a 6	.. a 5	5 a 6	5½ a 6	7 a 7½	8 a 9
July 15th.....	5 a 5½	5½ a 6	.. a 5	5 a 6	5½ a 6	7 a 7½	8 a 9
Aug. 1st.....	5 a 6	6 a 7	5 a 6	6 a 6½	6½ a 7	7½ a 8½	9 a 10
Aug. 15th.....	5½ a 6	6 a 7	6 a 6½	6 a 7	6½ a 7½	8 a 9	9 a 10
Sept. 1st.....	6 a 7	7 a 9	6½ a 7	7 a 9	8 a 9	9 a 12	12 a 24
Sept. 15th.....	6 a 7	6½ a 7	7 a 7½	7½ a 8	6½ a 7½	9 a 9½	10 a 10½
Oct. 1st.....	6½ a 7	7 a 8	6½ a 7	6½ a 7½	8 a 8½	9 a 10	12 a 20
Oct. 15th.....	6½ a 7	7 a 8	6½ a 7	6½ a 7½	8 a 8½	9 a 10	12 a 20

These show a considerable and steady advance for long time paper not "gilt-edge," but for business paper there was latterly rather a scarcity. The ease of the market facilitated, to a considerable extent, the remittances on account of importations; but the supply of bills was equal to the demand, and rates were rather on the decline than otherwise. The market for sterling has shown a remarkable steadiness since May, the rate hardly varying from 9¼ a 9⅜, against a range last year of 10¼ a 10½. The rates have been as follows:—

RATES OF BILLS IN NEW YORK.

	London.	Paris.	Amsterdam.	Frankfort.	Hamburg.	Berlin.
Jan. 1..	9 a 9⅜	5.18¾ a 5.17½	41⅝ a 41½	41⅝ a 41½	36½ a 36⅜	73 a 73½
15..	8¼ a 9	5.21½ a 5.18¾	41½ a 41½	41½ a 41½	36⅜ a 36⅜	73¾ a 73½
Feb. 1..	8⅞ a 9	5.18¾ a 5.17½	41½ a 41½	41⅜ a 41⅝	36⅜ a 36⅜	73⅜ a 73⅜
15..	8½ a 9	5.18¾ a 5.17½	41⅜ a 41½	41½ a 41⅜	36½ a 36½	73⅜ a 73½
Mar. 1..	8⅜ a 9	5.17½ a 5.15	41½ a 41⅝	41⅜ a 41½	36⅜ a 36⅜	73⅜ a 73⅜
15..	8⅜ a 8⅞	5.17½ a 5.15⅝	41⅜ a 41⅝	41⅜ a 41⅝	36⅜ a 36⅝	73½ a 73⅝
Apr. 1..	8⅜ a 8½	5.18¾ a 5.16¼	41½ a 41⅜	41½ a 41⅜	36⅜ a 36⅝	73½ a 73⅜
15..	8⅜ a 8⅜	5.16¼ a 5.17½	41⅜ a 41½	41⅜ a 41⅜	36½ a 36⅜	73½ a 73⅜
May 1..	9½ a 9½	5.13¾ a 5.12½	41½ a 41⅜	41⅜ a 42	36⅜ a 36⅞	73½ a 73⅜
15..	9⅜ a 9⅜	5.13¾ a 5.13¼	41⅜ a 41⅞	41⅞ a 42	36⅝ a 37	73⅜ a 73⅞
Jun. 1..	9⅜ a 9⅜	5.13¼ a 5.12½	41⅜ a 41⅞	41⅞ a 42	37 a 37½	73⅜ a 73⅞
15..	9½ a 9⅜	5.13¾ a 5.12½	41⅜ a 41⅜	41⅞ a 42	36⅜ a 37½	73⅜ a 73⅞
July 1..	9½ a 9⅞	5.13¾ a 5.13½	41⅜ a 41⅜	41⅞ a 42	36⅜ a 37	73⅜ a 73⅞
15..	9½ a 9⅞	5.13⅞ a 5.13½	41½ a 41⅜	41⅜ a 41⅞	36⅜ a 37	73⅜ a 73⅞
Aug. 1..	9⅜ a 9⅞	5.13⅞ a 5.13½	41⅜ a 41⅜	41⅞ a 42	36⅜ a 37	73⅜ a 73⅞
15..	9⅜ a 10	5.13¾ a 5.13½	41⅜ a 41⅞	41⅞ a 42	36⅞ a 37½	73⅜ a 73⅞
Sep. 1..	9⅜ a 10	5.14⅜ a 5.13½	41⅜ a 41⅞	41⅞ a 42	36⅞ a 37	73⅜ a 73⅜
15..	9⅜ a 9⅞	5.14⅜ a 5.13½	41⅜ a 41⅜	41⅜ a 42	36⅜ a 36⅞	73⅜ a 73⅞
Oct. 1..	9½ a 9⅜	5.15⅜ a 5.14⅜	41½ a 41⅜	41⅜ a 41⅞	36⅜ a 36⅞	73½ a 73⅜
15..	8½ a 9	5.17½ a 5.15⅝	41½ a 41⅜	41⅜ a 41⅜	36½ a 36⅜	73½ a 73⅜

The shipment from Boston during the month of September was only $61,841.

These rates have had an influence upon the specie movement, which has, however, this year been moderate, as well in receipts as in export. The great source of gold supply, California, does not now demand so much merchandise or produce from this port as formerly, and, as a matter of course, the current of gold is less deep or rapid. In respect of breadstuffs, the current is reversed, and wheat comes now in large quantities and of a character fitted for the foreign market. It is a white wheat and hard. In years like this, when food is in demand abroad, and England must buy it and give gold for it, it answers all the purpose of gold to send it thither from the gold countries. The specie movement has been as follows :—

GOLD RECEIVED FROM CALIFORNIA AND EXPORTED FROM NEW YORK WEEKLY, WITH THE AMOUNT OF SPECIE IN SUB-TREASURY, AND THE TOTAL IN THE CITY.

	1859.		1860.			
	Received.	Exported.	Received.	Exported.	Specie in sub-treasury.	Total in the city.
Jan. 7.....	.....	$1,052,558	.....	$85,080	$7,737,965	$25,600,699
14.....	$1,376,300	218,049	1,788,666	88,482	7,729,646	26,470,512
21.....	.....	567,398	.....	259,400	8,352,485	27,585,970
28.....	1,210,713	467,694	1,760,582	81,800	8,957,123	29,020,862
Feb. 4.....	.....	606,969	94,569	427,457	9,010,569	28,934,870
11.....	1,319,928	361,550	1,476,621	92,350	9,676,732	29,464,299
18.....	.....	1,013,780	.....	592,997	10,012,572	30,603,762
26.....	1,287,967	358,554	1,393,179	202,000	8,955,203	29,729,199
Mar. 3.....	.....	1,427,556	382,503	667,282	8,734,028	31,820,840
10.....	933,130	307,106	1,198,711	115,473	8,237,909	30,139,089
17.....	.....	870,578	152,000	429,260	8,099,409	31,271,247
24.....	.....	208,955	895,336	465,115	8,122,672	31,408,876
31.....	1,032,314	1,348,059	155,110	706,006	8,026,492	31,447,251
Apr. 7.....	.....	576,107	.....	310,088	7,562,885	30,162,017
14.....	1,404,210	1,637,104	1,146,211	630,010	7,714,000	31,640,982
21.....	.....	1,496,889	.....	241,503	7,531,488	30,764,897
28.....	1,723,352	1,680,743	1,455,337	1,774,767	7,668,723	30,848,532
May 5.	.....	2,169,197	.....	2,355,117	7,041,143	30,856,889
12.....	1,480,115	1,926,491	1,382,753	633,881	6,539,414	29,319,801
19.....	.....	2,223,578	.....	1,251,177	6,864,148	30,599,341
26.....	1,938,669	5,126,643	1,519,703	1,317,773	6,982,660	30,414,433
June 2.....	.....	2,325,972	.....	1,719,138	6,621,100	31,196,557
9.....	1,513,978	1,877,294	.....	1,542,466	6,620,622	30,406,203
15.....	.....	1,669,268	1,385,652	2,526,478	6,426,755	30,537,000
22.....	.....	1,620,731	.....	1,417,757	6,326,894	29,677,815
29.....	2,041,237	1,861,163	1,541,580	1,962,776	6,253,357	28,717,607
July 9.....	.....	1,398,885	... .	1,166,773	5,187,468	27,939,162
14.....	1,736,861	2,495,127	1,514,884	1,283,135	5,404,367	28,156,061
21.....	.....	2,030,220	673,290	1,624,280	5,432,789	28,376,433
28.....	2,145,000	2,344,040	.....	1,880,497	5,112,942	28,212,668
Aug 4.....	.....	1,284,855	988,676	1,739,259	5,559,922	27,688,011
11.....	1,860,274	1,505,889	1,006,283	1,357,198	5,732,534	27,312,274
18.....	.....	1,594,933	.....	2,183,281	5,902,350	26,911,000
25.....	2,126,382	1,584,879	798,882	1,730,696	5,985,545	26,105,279
Sept. 1.....	*962,030	509,649	950,000	1,302,266	5,607,627	24,642,700
8.....	2,046,006	2,363,385	.....	1,198,893	5,333,650	24,721,300
15.....	. .....	1,760,331	791,660	1,088,923	5,636,367	24,597,300
22.....	2,042,363	2,727,194	.....	533,843	5,448,804	24,435,400
29.....	.....	1,414,590	1,202,657	900,700	5,223,432	25,400,400
Oct. 7.....	†2,350,670	727,981	.....	689,419	4,991,575	25,139,300
15.....	1,883,670	1,480,883	1,971,645	16,679	4,496,881	24,770,669
Total.....	34,315,004	60,156,641	27,606,761	39,668,991	.....	.....

* From New Orleans. † $300,000 silver from Mexico.

This gives a decline of over $19,000,000 in the shipment, as compared with last year, when, however, the export was unusually large. Notwithstanding this decline, the amount in the city does not vary materially from what it was at the same date last year. The operations of the assay-office for the month has not been important, as follows:—

NEW YORK ASSAY-OFFICE.

	Foreign.				United States.			Payments in	
	Gold.		Silver.			Silver.			
	Coin.	Bullion.	Coin.	Bullion.	Gold.	Coin.	Bullion.	Bars.	Coin.
Jan.	14,000	18,000	11,200	14,000	2,478,000	1,800	20,000	647,000	1,910,000
Feb.	5,000	28,000	6;500	24,000	951,000	....	7,500	932,000	90,000
Mar.	8,000	15,000	23,400	5,500	267,000	1,100	2,500	180,000	142,500
Apr.	8,000	32,000	14,500	10,000	183,000	3,700	8,800	187,000	70,000
May	11,200	20,800	25,500	18,000	176,000	7,000	16,500	230,000	45,000
June	12,000	19,000	10,000	4,000	147,000	1,750	2,750	158,000	38,500
July	9,500	18,000	12,800	8,000	159,500	1,200	3,000	140,000	72,000
Aug.	12,000	14,000	16,000	14,100	208,000	1,000	3,900	190,000	79,000
Sept.	13,000	41,000	7,500	14,000	323,000	....	8,500	350,000	57,000
Tot.	92,700	209,800	127,400	111,600	4,892,500	17,550	70,450	3,014,000	3,801,000
'59	99,000	104,000	332,780	64,900	2,558,600	12,900	81,920	2,519,000	1,030,100

There has been a little more demand for bars, it appears, but there is not so much change as in the movement of the mint, which shows great activity after having been out of operation during August, as follows:—

UNITED STATES MINT, PHILADELPHIA.

	Deposits.		Coinage.			
	Gold.	Silver.	Gold.	Silver.	Cents.	Total
January	$200,000	$41,000	$1,024,563	$41,000	$24,000	$1,090,568
February	1,838,578	35,573	1,632,160	21,600	24,000	1,677,760
March	144,478	82,255	317,451	132,989	29,000	479,440
April	281,891	49,764	252,756	38,431	30,000	321,188
May	90,828	72,468	133,004	81,100	35,000	249,104
June	54,893	54,676	63,718	97,160	24,000	184,878
July	97,041	14,181	101,975	87,000	16,660	205,635
August	132,133	22,741		No coinage.		
September	2,174,100	29,537	2,181,460	36,000	4,000	2,221,460
Total, 1860	$5,833,939	$412,175	$5,607,078	$535,186	$186,660	$7,042,033
Total, 1859	1,080,780	729,160	959,280	765,996	260,000	3,795,166

The coinage of gold was large for the month.

The imports at the port for the month of September have been less than for the corresponding month last year, but they slightly exceed those of the same month in 1858. The quantity entered for warehouse has also been larger than last year, but the withdrawals have been much larger, showing a diminution of $2,400,000 in bond:—

FOREIGN IMPORTS AT NEW YORK IN SEPTEMBER.

	1857.	1858.	1859.	1860.
Entered for consumption	$8,841,867	$11,180,528	$12,470,440	$11,516,187
Entered for warehousing	5,428,203	2,900,700	2,177,966	2,835,734
Free goods	1,772,505	1,253,829	1,810,626	2,652,382
Specie and bullion	805,285	138,233	184,553	255,695
Total entered at the port	$16,847,860	$15,473,295	$16,643,585	$16,260,450
Withdrawn from warehouse	2,882,046	2,905,062	2,898,441	4,007,272

The quantities entered for warehouse in September, 1857, marked the panic which then prevailed. In the subsequent year the amount entered for con-

sumption marked that of the sales. Last year the withdrawals were more than the entries for warehouse, and this year the same feature is exaggerated. The imports of goods for quarter, and for the three quarters since January, are less than last year:—

FOREIGN IMPORTS AT NEW YORK FOR NINE MONTHS, FROM JANUARY 1st.

	1857.	1858.	1859.	1860.
Entered for consumption	114,522,999	$76,582,484	144,397,670	129,786,408
Entered for warehousing	56,855,878	20,232,150	28,351,768	32,395,925
Free goods	15,504,705	16,552,095	23,160,678	21,469,063
Specie and bullion	6,679,914	2,021,173	1,834,054	1,147,633
Total entered at the port	193,563,491	115,387,852	197,744,170	184,799,029
Withdrawn from warehouse	32,122,274	31,097,577	20,305,309	24,090,689

The quantity of goods in bond has been reduced during the month $1,500,000, notwithstanding the large imports:—

QUARTERLY STATEMENT OF FOREIGN IMPORTS AT NEW YORK FROM JANUARY 1st.

	1857.	1858.	1859.	1860.
First quarter	$65,666,728	$29,044,464	$59,116,788	$64,702,778
Second quarter	55,262,699	32,740,170	70,048,086	53,025,238
Third quarter	72,634,064	53,603,218	68,579,296	67,081,000
Total, nine months	193,563,491	115,387,852	197,744,170	184,809,016

The imports of dry goods for consumption in September of the present year are somewhat larger than for the same month last year, and for any previous year, excepting 1856. The increase is mostly woolens and silk. The quantities put upon market, it will be seen, exceed by $350,000 the amount that entered the port:—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR THE MONTH OF SEPTEMBER.

ENTERED FOR CONSUMPTION.

	1857.	1858.	1859.	1860.
Manufactures of wool	$1,362,495	$1,910,232	$2,005,881	$2,292,869
Manufactures of cotton	820,449	881,692	862,065	595,726
Manufactures of silk	1,348,572	2,077,703	1,998,329	2,476,255
Manufactures of flax	375,293	404,768	614,930	485,836
Miscellaneous dry goods	328,275	301,912	518,268	636,054
Total	$4,235,084	$5,576,307	$5,990,973	$6,486,740

WITHDRAWN FROM WAREHOUSE.

	1857.	1858.	1859	1860
Manufactures of wool	$330,389	$484,900	$317,469	$444,921
Manufactures of cotton	87,362	128,765	96,581	171,237
Manufactures of silk	107,333	178,456	76,672	131,433
Manufactures of flax	93,091	121,410	109,614	56,494
Miscellaneous dry goods	70,240	107,745	40,596	59,742
Total	$668,415	$1,021,276	$640,932	$863,828
Add entered for consumption	4,235,084	5,576,307	5,990,973	6,486,740
Total thrown upon market	$4,903,499	$6,597,583	$6,631,905	$7,350,567

ENTERED FOR WAREHOUSING.

	1857.	1858.	1859.	1860.
Manufactures of wool	$920,825	$178,150	$185,812	$177,805
Manufactures of cotton	455,549	100,492	115,460	196,796
Manufactures of silk	440,269	44,416	67,446	44,397
Manufactures of flax	420,909	79,043	130,088	66 777
Miscellaneous dry goods	193,146	46,607	38,287	35,196
Total	$2,430,198	$448,708	$537,093	$520,971
Add entered for consumption	4,235,084	5,576,307	5,990,973	6,486,740
Total entered at the port	$6,665,282	$6,025,015	$6,528,066	$7,007,711

This leaves the total imports of foreign dry goods at this port, since January 1st, $9,400,000 less than for the corresponding date of last year, while the amount put on the market is only $6,800,000 less than last year:—

IMPORTS OF FOREIGN DRY GOODS AT THE PORT OF NEW YORK, FOR NINE MONTHS, FROM JANUARY 1ST.

ENTERED FOR CONSUMPTION.

	1857.	1858.	1859.	1860.
Manufactures of wool	$19,010,964	$13,890,836	$28,875,357	$26,241,572
Manufactures of cotton	13,748,031	9,557,996	18,868,286	12,502,382
Manufactures of silk	21,911,711	14,459,562	27,476,406	28,967,659
Manufactures of flax	5,044,318	3,359,963	8,089,840	5,870,131
Miscellaneous dry goods	5,380,866	2,698,170	4,695,304	4,938,413
Total	$65,095,390	$41,966,527	$87,503,193	$78,020,157

WITHDRAWN FROM WAREHOUSE.

	1857.	1858.	1859.	1860.
Manufactures of wool	$4,815,683	$4,003,246	$2,578,390	$2,889,603
Manufactures of cotton	2,718,415	3,280,663	1,404,902	2,258,775
Manufactures of silk	3,862,866	3,065,465	796,003	1,430,609
Manufactures of flax	1,389,126	1,868,026	880,313	708,865
Miscellaneous dry goods	707,877	1,136,379	354,466	499,524
Total	$13,493,967	$13,353,779	$6,014,074	$7,787,376
Add entered for consumption	65,095,390	41,966,527	87,503,193	78,020,157
Total thrown on market	$78,589,357	$55,320,306	$93,517,267	$85,707,533

ENTERED FOR WAREHOUSING.

	1857.	1858.	1859.	1860.
Manufactures of wool	$6,650,196	$1,909,642	$2,886,053	$2,939,865
Manufactures of cotton	3,078,640	1,648,030	1,264,009	2,159,404
Manufactures of silk	4,647,896	1,032,557	734,493	1,310,513
Manufactures of flax	1,957,634	728,273	689,380	428,830
Miscellaneous dry goods	1,417,544	483,884	380,879	500,770
Total	$17,751,910	$5,802,386	$5,954,764	$6,339,382
Add entered for consumption	65,095,390	41,966,527	87,503,193	78,707,533
Total entered at the port	$82,847,300	$47,768,913	$93,457,957	$86,046,915

The total exports, exclusive of specie, shipped from New York to foreign ports in the month of September is $4,130,000 more than for the same period of last year, and more than for September in any previous year. This results as well from the large cotton exports, as from the considerable revival in grain exports that followed the news of bad crops in Europe. We annex a comparison for four years:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE MONTH OF SEPTEMBER.

	1857.	1858.	1859.	1860.
Domestic produce	$4,218,954	$3,521,992	$4,946,612	$9,232,931
Foreign merchandise (free)	417,570	169,863	188,072	46,620
Foreign merchandise (dutiable)	566,106	204,390	635,172	620,394
Specie and bullion	990,476	3,239,591	8,267,681	3,758,734
Total exports	$6,193,106	$7,135,836	$14,037,497	$13,658,679
Total, exclusive of specie	5,202,630	3,896,245	5,769,816	9,899,945

The shipments of specie for September have been larger than for the same month in any year except the last. The exports, exclusive of specie, from New York to foreign ports this year are larger than for any previous year, and $20,000.000 in excess over last year. The exports of specie show a large excess over any previous year except 1859 :—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR NINE MONTHS, FROM JANUARY 1.

	1857.	1858.	1859.	1860.
Domestic produce	$47,233,769	$41,534,618	$43,470,969	$63,527,320
Foreign merchandise (free)	3,127,326	1,125,561	2,327,879	1,983,127
Foreign merchandise (dutiable)	4,104,150	2,986,672	3,447,668	4,136,725
Specie and bullion	33,288,632	20,602,848	57,926,455	39,357,200
Total exports	$87,753,877	$66,249,699	107,172,971	109,004,300
Total, exclusive of specie	54,465,245	45,646,851	49,246,561	69,647,100

The cash duties received at New York show a diminution as compared with last year, following the lessened importation:—

CASH DUTIES RECEIVED AT NEW YORK.

	1858.	1859.	1860.
First six months	$11,089,112 57	$19,912,181 99	$18,339,679 00
In July	3,387,805 33	4,851,246 89	4,504,066 00
In August	3,545,119 01	4,243,010 43	4,496,243 00
In September	2,672,935 63	2,908,509 95	3,038,803 00
Total since Jan. 1st	$20,694,472 54	$31,514,949 26	$30,378,781 00

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

BALTIMORE LIABILITIES.

The total liabilities of the city of Baltimore, including indorsements, will be found comprised under the following heads:—

Miscellaneous purposes	$400,919
Internal improvements	4,963,215
Court-house	160,754
Supply of water, say	3,000,000
Cumberland Valley Railroad	500,000
New jail	250,000
Pittsburg and Connelsville Railroad Co	1,000,000
Northwestern Virginia Railroad Co	1,500,000
Baltimore and Ohio Railroad loan	5,000,060
Total September, 1860	$16,774,888
Against these there is an aggregate sinking fund of, say	1,051,885
Reducing liabilities of the city to a total of	15,723,003

This should be further reduced by value of city property, estimated at not less than $800,000.

NEW ORLEANS UNITED STATES BRANCH MINT.

The following statement of the deposits and coinage at the branch mint, New Orleans, from the 1st of August, 1859, to the 31st of July, 1860, inclusive:—

GOLD DEPOSITS.

California gold bullion	$89,394 26	
Other gold bullion	71,434 57	
		$160,828 83

SILVER DEPOSITS.

Extracted from California gold	$690 07	
Other silver bullion	1,310,927 21	
		1,311,617 28
Total gold and silver deposits		$1,472,446 11
" " 1858-59		3,145,880 10
Decrease		$1,672,433 99

GOLD COINAGE.

	Pieces.	Value.	
Double eagles	3,600	$72,000 00	
Eagles	8,200	82,000 00	
Total	11,800		154,000 00

SILVER COINAGE.

	Pieces.	Value.	
Silver dollars	245,000	$245,000 00	
Half dollars	2,012,000	1,006,000 00	
Quarter dollars	388,000	97,000 00	
Dimes	370,000	37,000 00	
Half dimes	1,060,000	53,000 00	
Total	4,075,000		1,438,000 00
In silver bars			29,209 41
Total coinage, 4,086,800 pieces			$1,621,209 41
" " in 1858-59			3,578,996 47
Decrease			$1,957,787 06

LEATHER FAILURES.

The following is an interesting summary from the London *Times* of the results of the late failures in the leather trade in London:—

IN BANKRUPTCY.

Name.	Liabilities.	Assets. Amount.	In the £ s.	d.	Deficiency.
Streatfeild & Co.	£744,448	£214,140	5	9	£530,308
Smith, Patient & Smith	207,138	37,097	3	6	170,041
J. Herbert, Smith & Co.	168,306	46,654	5	6	121,652
W. G. Gibson	150,000	40,000	5	4	110,000
Francis & Hooper	69,721	10,951	3	1	58,770
J. Clarke (firm R & J. Clarke)	66,663	13,474	4	0	53,189
J. G. Sullivan	50,000	2,450	0	11	47,550
Hooper & Parkinson	43,715	10,758	4	11	32,957
J. Hooper	31,000	5,200	3	4	25,800
Total	£1,530,991	£380,724	5	0	£1,150,267
Deduct costs of winding up	.....	38,072	0	6	.....
	£1,530,591	£342,652	4	6	£1,188,339
Lawrence, Mortimore & Co.	800,000	Particulars not published.			
Benjamin Gibbs	14,000				

WINDING UP OR COMPROMISED.

Name.	Liabilities.	Assets. Amount.	In the £. s.	d.	Deficiency.
T. H. Mortimore	£96,754	£56,856	11	9	£39,898
W. & C. M. Mundy	59,948	32,988	11	0	26,960
Edmund Buvelot	57,790	16,209	5	7	41,581
A. Waring	56,351	19,366	6	10	36,995
Parker & Co	46,616	19,733	8	6	26,883
H. Hacker	44,482	9,696	4	4	34,736
R. Mortimore	34,400	17,500	10	2	16,900
D. Carpenter	25,371	10,948	8	7	14,423
Ridley & Son	23,084	5,366	4	7	17,718
John Baker	16,072	4,406	6	6	11,666
D. & J. Mackintosh	10,664	8,204	15	4	2,460
John Morris	8,336	4,655	11	2	3,670
D. Barclay & Sons	7,957	3,878	9	9	4,079
W. J. Armstrong	6,522	3,661	11	2	2,861
W. A. Page	6,500	3,580	11	0	2,920
	£499,806	£216,556	8	8	£283,250

Draper & Co., Rider & Co., Paris, £15,000. T. Pilling & Co., £60,000. Particulars not yet published. Jonathan Priestman, James Mulrhead, Thomas Butcher, Poole & Co., Mulrdock & Son, pay in full, with time. Particulars not published.

TOTALS.

	Firms.	Liabilities.	Assets. Amounts.	In the £. s.	d.	Deficiency.
In bankruptcy	9	£1,530,991	£342,652	4	6	£1,188,339
Winding up	15	499,806	216,556	8	8	283,250
	24	£2,030,797	£559,208	5	6	£1,471,589
Others not published	10					
Firms	34					

The losses falling upon the London joint-stock banks and discount companies are estimated at:—

	Paper held.	Estimated loss.
London Joint-Stock Bank	£180,000	£40,000
London and Westminster	.....	10,000
Bank of London	.....	10,000
City Bank	50,000	7,000
Unity Bank	.....	500
Union Bank of London	.....	.....
Commercial	.....	.....
London and County	.....	.....
London Discount Company	52,000	21,000
National Discount Company	46,831	20,000
Mercantile Discount Company	not published.	.....
General Discount Company	not published.	.....
Total		£108,500

WEALTH OF NEW YORK STATE.

The State Assessors, at a recent meeting, fixed and equalized the valuation of the real and personal property of the several counties of New York for 1860, and in a table below we present the number of acres of land in each county, with the valuation of the property as fixed by the local Assessors for 1859; also, the valuation of the State Assessors for the same year, with their revisions for the year 1860. The object of equalizing the valuation of property throughout the State, is that each county may pay its proper proportion of the State tax:—

Counties.	Acres of land taxed in 1859.	Local Assessors' valuation of personal and real estate for 1859.	Valuation as fixed by Board of Equalization for 1859.	Valuation as fixed by Board of Equalization for 1860.
Albany	308,414	$39,241,648	$38,544,737	$39,044,737
Alleghany	641,093	8,583,044	8,035,120	8,035,120
Broome	427,694	7,418,726	8,491,423	8,391,423
Cattaraugus	801,311	7,235,208	6,620,148	6,620,148
Cayuga	415,823	19,214,844	19,214,844	19,214,844
Chatauqua	651,982	14,661,967	14,270,102	14,270,102
Chemung	247,300	7,098,887	6,272,762	6,472,742
Chenango	543,996	11,012,542	10,962,405	10,500,000
Clinton	630,524	6,197,478	5,727,775	5,727,775
Columbia	377,300	14,654,612	18,365,430	18,365,430
Cortland	308,216	5,783,069	6,465,933	6,165,923
Delaware	878,495	5,584,572	8,210,352	8,210,352
Dutchess	490,180	29,076,783	30,979,280	29,979,280
Erie	612,847	47,042,698	40,751,841	47,251,841
Essex	1,068,891	4,442,759	3,824,027	3,824,027
Franklin	997,053	4,454,593	4,149,270	4,149,270
Fulton	317,707	4,272,766	4,054,412	4,054,412
Genesee	315,557	13,180,705	11,650,136	11,650,136
Greene	388,258	7,208,239	8,650,084	7,590,084
Hamilton	776,076	472,592	470,333	470,333
Herkimer	769,022	9,992,617	10,144,567	10,144,567
Jefferson	733,089	15,786,901	15,935,769	15,935,769
Kings	18,679	106,914,629	104,295,591	106,295,591
Lewis	743,909	4,995,200	4,995,200	3,495,200
Livingston	380,359	15,322,283	14,306,555	14,306,555
Madison	890,280	11,508,750	11,072,782	11,072,782
Monroe	391,028	27,632,631	26,232,076	26,732,076
Montgomery	228,000	8,782,486	7,354,077	7,354,077
New York	13,920	552,008,742	532,903,476	550,078,778
Niagara	313,409	13,774,764	12,823,822	12,823,822
Oneida	736,164	16,641,107	25,639,379	25,639,379
Onondaga	461,420	26,436,829	28,350,128	28,350,128
Ontario	391,423	17,414,614	16,445,575	16,445,575
Orange	479,300	25,708,986	24,828,254	24,525,254
Orleans	237,394	9,623,636	9,682,789	9,682,749
Oswego	595,294	14,929,869	14,254,368	14,254,368
Otsego	669,168	12,063,554	12,172,302	12,072,302
Putnam	185,627	5,137,530	7,114,055	6,114,055
Queens	185,873	20,283,225	22,343,083	21,343,083
Rensselaer	395,000	26,674,215	26,078,926	26,278,926
Richmond	20,293	7,437,318	9,728,402	9,728,402
Rockland	102,300	5,869,156	5,440,264	5,440,260
Saratoga	505,210	11,895,425	12,048,356	12,048,356
Schenectady	122,309	5,695,711	5,602,786	5,602,786
Schoharie	373,410	6,426,399	7,350,381	6,850,681
Schuyler	200,551	4,261,478	4,280,723	4,280,723
Seneca	197,664	10,655,713	7,809,547	8,159,547
St. Lawrence	1,660,626	16,266,254	15,633,359	15,633,359
Steuben	385,000	14,922,167	13,991,732	13,991,732
Suffolk	407,091	10,996,094	13,050,506	12,050,506
Sullivan	592,879	4,134,995	4,132,995	4,132,995
Tioga	309,802	5,539,396	5,948,318	5,848,318
Tompkins	293,389	7,491,625	7,574,265	7,874,265
Ulster	657,559	14,959,206	15,567,658	15,567,658
Warren	508,795	2,575,761	2,519,380	2,519,380
Washington	494,612	16,192,775	15,331,107	15,331,105
Wayne	357,556	13,991,775	13,857,157	13,887,157
Westchester	280,141	40,467,671	41,012,725	41,012,725
Wyoming	368,000	8,353,839	7,750,822	7,750,822
Yates	208,036	7,728,481	7,293,708	7,293,708
Total	27,560,583	1,416,290,837	1,404,907,679	1,419,155,520

CITY WEEKLY BANK RETURNS.

NEW YORK BANK RETURNS.—(CAPITAL, JAN., 1860, $69,338,632; 1859, $68,050,755.)

	Loans.	Specie.	Circulation.	Deposits.	Average clearings.	Actual deposits.
Jan. 7	124,597,663	17,863,734	8,539,063	97,493,709	22,684,854	74,808,855
14	123,582,414	18,740,866	8,090,548	99,247,743	23,363,980	75,883,763
21	123,845,981	19,238,494	7,880,865	99,644,128	22,813,547	76,830,581
28	123,088,626	20,063,739	7,760,761	98,520,793	21,640,967	76,879,826
Feb. 4	124,091,982	19,924,301	8,174,450	99,476,430	21,898,736	77,577,494
11	123,336,629	19,787,567	8,185,109	98,146,463	21,674,908	76,471,055
18	124,206,031	20,591,189	8,050,001	100,387,051	22,061,811	78,325,240
25	124,398,239	20,773,896	7,928,595	100,622,481	22,151,504	78,470,977
Mar. 3	125,012,700	23,086,812	8,165,026	103,663,462	22,787,290	80,876,172
10	127,302,778	21,861,180	8,419,633	104,813,906	23,791,958	81,021,948
17	127,562,848	23,171,833	8,380,999	108,560,981	25,562,858	82,998,123
24	127,613,507	23,286,204	8,335,266	107,505,395	25,397,976	82,107,419
31	128,388,223	23,420,759	8,444,827	106,811,554	22,899,523	83,422,031
Apr. 7	130,606,781	22,599,132	8,929,228	109,193,464	25,656,629	83,536,835
14	129,919,015	23,626,982	8,775,297	109,153,863	24,256,270	84,897,593
21	128,448,868	23,283,314	8,790,459	108,145,233	25,758,735	82,386,498
28	127,085,667	23,279,809	8,749,048	103,206,723	21,391,290	81,815,433
May 5	127,479,520	23,815,746	9,391,861	108,505,388	26,546,063	81,959,325
12	126,184,532	22,780,387	9,153,811	108,038,848	27,802,174	80,236,674
19	124,938,389	23,735,193	9,035,522	106,229,724	25,339,444	80,890,280
26	125,110,700	23,431,773	8,826,473	104,433,136	24,309,496	80,123,640
June 2	124,792,271	24,585,457	8,774,063	104,268,785	22,888,107	81,380,678
9	125,481,963	23,785,581	8,999,948	103,886,091	22,776,108	80,609,983
16	125,399,997	24,110,553	8,828,786	104,031,268	22,492,614	81,538,654
23	125,886,565	23,350,921	8,779,115	102,737,055	22,116,242	80,620,813
30	127,208,201	22,434,250	8,745,182	102,496,762	21,309,053	81,187,709
July 7	127,244,241	22,751,694	9,343,727	103,450,426	22,119,106	81,331,320
14	127,123,166	23,641,357	8,075,528	106,399,678	23,456,447	82,943,231
21	128,427,489	23,443,644	8,833,619	107,717,216	23,457,781	84,259,435
28	129,074,298	23,099,726	8,760,252	105,524,100	21,239,450	84,284,650
Aug. 4	130,118,247	22,128,189	9,176,386	107,264,777	23,417,789	83,846,988
11	129,855,179	21,579,740	9,129,835	105,505,399	22,626,292	82,879,107
18	129,950,346	21,008,701	9,088,648	105,690,481	22,934,365	82,756,116
25	130,578,997	20,119,779	9,142,006	104,423,122	22,433,949	81,989,173
Sept. 1	129,029,175	19,035,029	9,253,682	102,229,586	22,561,086	79,668,998
8	127,999,839	19,187,713	9,538,824	101,185,086	24,072,405	77,112,681
15	127,002,728	18,960,749	9,494,832	101,117,627	24,257,872	76,859,755
22	125,802,644	18,988,603	9,480,871	101,311,780	25,556,849	75,754,931
29	124,849,426	20,177,986	9,487,637	101,533,834	25,150,441	76,383,393
Oct. 6	123,337,157	20,147,828	9,570,507	103,281,058	28,104,322	75,176,736
13	122,307,138	20,273,708	9,337,283	100,753,185	25,930,584	74,822,601

BOSTON BANKS.—(CAPITAL, JAN., 1859. $35,125,433; 1860, $37,258,600.)

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 2 ..	59,807,566	4,674,271	6,479,488	18,449,305	7,545,222	6,848,374
16 ..	60,068,941	4,478,841	6,770,624	17,753,002	7,867,400	6,735,283
23 ..	59,917,170	4,182,114	6,486,139	17,378,070	7,784,169	6,516,582
30 ..	59,491,887	4,172,325	6,199,485	17,483,054	7,883,370	6,517,541
Feb. 6 ..	60,705,422	4,249,594	6,307,922	17,900,002	7,259,703	6,656,460
13 ..	59,993,784	4,462,698	6,364,320	17,271,596	7,426,539	6,593,702
20 ..	60,113,836	4,577,334	6,305,587	17,597,881	7,430,060	6,549,382
27 ..	59,927,917	4,714,034	6,411,573	18,020,239	7,700,530	7,480,954
March 5 ..	59,993,784	5,034,737	6,396,656	18,645,621	7,736,290	7,768,074
12 ..	59,885,196	5,328,610	6,430,643	18,393,293	7,715,663	7,390,935
19 ..	60,258,208	5,446,840	6,405,094	18,660,205	.....	.....
26 ..	60,180,209	5,627,961	6,328,278	18,742,817	8,351,016	7,804,222
Apr. 2 ..	60,050,953	6,045,703	6,340,268	19,262,894	8,473,775	8,080,218
9 ..	60,668,559	6,320,551	7,753,491	20,469,893	9,206,161	9,788,121
16 ..	61,189,629	6,289,719	7,267,165	20,291,620	9,160,868	8,814,312

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
23 ..	61,035,965	6,315,952	7,152,766	20,266,917	9,055,077	8,138,121
30 ..	61,259,552	6,317,999	6,992,903	20,195,951	9,278,558	7,948,086
May 7 ..	61,614,199	6,311,714	7,322,813	20,810,086	9,116,514	8,324,391
14 ..	61,744,290	6,263,535	7,076,071	20,758,862	9,210,132	8,209,699
21 ..	61,724,621	6,268,919	7,031,306	20,726,996	9,197,894	8,241,899
28 ..	61,258,986	6,201,118	6,660,595	20,320,518	9,057,822	8,272,557
June 4 ..	61,585,669	6,192,455	6,800,711	20,656,295	9,172,878	8,366,511
11 ..	62,346,519	6,300,700	7,090,282	20,228,677	9,629,483	7,857,439
18 ..	63,085,953	6,322,698	7,165,453	20,677,536	9,988,840	7,991,098
25 ..	63,557,155	6,262,930	7,188,326	20,750,673	10,307,194	8,188,802
July 2 ..	64,172,028	6,059,370	6,925,022	20,828,714	10,300,178	7,527,888
9 ..	65,039,459	6,087,718	7,932,653	21,133,175	11,304,893	9,105,876
16 ..	65,153,413	5,685,920	7,560,686	20,312,421	11,098,306	7,995,222
23 ..	64,852,961	5,335,523	7,523,745	19,751,313	11,093,127	8,158,425
30 ..	64,460,289	5,212,470	6,848,334	19,296,454	10,353,708	6,961,414
Aug. 6 ..	64,777,963	5,164,006	7,127,254	19,610,274	9,923,931	7,878,456
13 ..	64,840,527	5,128,628	7,075,440	19,157,661	9,851,112	6,816,650
20 ..	64,650,278	5,063,925	7,107,097	18,700,624	9,772,783	6,761,286
27 ..	64,216,345	4,966,105	6,790,847	18,965,057	9,656,546	6,956,287
Sept. 3 ..	64,054,318	5,051,016	6,759,683	19,235,834	9,681,885	7,364,997
10 ..	64,568,627	5,330,857	7,241,099	19,297,692	9,483,486	7,238,107
17 ..	64,739,871	5,381,366	7,078,175	19,032,822	9,479,905	6,755,991
24 ..	64,639,800	5,376,494	7,151,186	19,458,038	9,456,841	7,218,410
Oct. 1 ..	64,662,239	5,377,112	7,188,844	19,900,786	9,439,696	7,525,447

PHILADELPHIA BANKS.—(CAPITAL, JAN., 1860, $11,783,190.)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due banks
Jan. 2....	25,386,387	4,450,261	2,856,601	14,982,919	2,619,192
9....	25,248,051	4,453,252	2,675,623	14,161,437	2,596,212
16....	25,275,219	4,561,998	2,672,730	14,934,517	2,563,449
23....	25,445,737	4,514,579	2,644,191	15,064,970	2,601,271
30....	25,526,198	4,585,321	2,601,750	15,401,915	2,619,573
Feb. 6....	25,493,975	4,669,929	2,656,310	15,409,241	2,574,015
13....	25,493,975	4,669,929	2,656,310	15,409,241	2,574,015
20....	25,458,354	4,581,356	2,663,695	14,864,302	2,782,306
27....	25,553,918	4,706,108	2,653,192	14,590,092	3,115,010
Mar. 5....	25,742,447	4,816,052	2,697,108	15,192,971	3,133,312
12....	25,742,447	4,816,052	2,697,108	15,192,971	3,133,312
19....	25,832,077	4,873,419	2,783,345	15,205,432	3,209,553
26....	26,048,772	4,992,542	2,784,773	15,693,622	3,198,530
April 2....	26,405,229	5,060,274	2,858,812	15,553,269	3,652,757
9....	27,214,254	5,209,576	3,528,762	15,528,762	4,085,695
16....	27,444,580	5,415,711	3,252,186	16,012,140	4,164,678
23....	27,545,351	5,464,280	3,154,285	16,613,616	3,985,110
30....	27,571,002	5,453,470	3,037,846	16,529,891	3,902,514
May 7....	27,590,212	5,477,019	2,968,444	16,763,609	3,731,987
14....	27,463,831	5,537,360	2,944,245	16,489,872	4,209,845
21....	27,401,926	5,367,416	2,870,617	16,422,835	4,085,882
28....	27,288,932	4,886,579	2,818,719	15,884,903	3,974,369
June 4....	27,171,002	4,582,610	2,824,471	15,620,293	3,744,431
11....	27,046,016	4,183,667	2,810,552	15,698,909	3,128,287
18....	26,882,709	4,222,644	2,725,269	15,642,639	3,109,639
25....	26,780,533	4,329,688	2,664,503	15,643,433	3,060,615
July 2....	26,835,868	4,305,866	2,960,381	15,824,391	3,159,819
9....	26,835,868	4,305,866	2,960,381	15,824,391	3,159,819
16....	26,878,435	4,403,157	2,859,852	15,796,205	3,313,195
23....	26,842,748	4,553,641	2,821,082	15,966,734	3,099,567
30....	26,861,776	4,249,304	2,785,718	16,085,967	3,211,855
Aug. 6....	26,936,227	4,800,443	2,837,207	16,369,525	3,097,889
13....	26,880,307	4,768,405	2,849,340	15,671,260	3,261,584
20....	26,835,337	4,771,772	2,854,553	15,588,318	3,275,683
27....	27,095,028	4,757,917	2,835,524	15,923,769	3,185,826

	Loans.	Specie.	Circulation.	Deposits.	Due bank.
Sept. 8....	27,095,028	4,257,917	2,835,524	15,923,769	3,285,107
10....	27,224,180	4,753,709	2,891,376	16,103,815	3,243,168
17....	27,492,859	4,741,624	2,909,887	16,315,516	3,305,117
24....	27,760,486	4,632,878	2,887,640	16,458,442	3,151,218
Oct. 1....	27,983,753	4,676,099	2,832,280	16,852,588	3,300,354

NEW ORLEANS BANKS.—(CAPITAL, JAN., 1860, $18,917,600.)

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
Jan. 7 ..	25,022,456	12,234,448	12,038,494	18,563,804	7,328,530	1,557,174
14 ..	24,928,909	12,386,735	12,417,847	18,678,233	7,410,360	1,887,704
21 ..	24,699,024	12,821,411	12,809,512	18,664,355	7,423,629	1,377,796
28 ..	24,916,481	12,818,159	12,882,184	19,677,121	8,144,681	1,603,763
Feb. 4 ..	25,145,274	12,750,642	13,215,494	19,565,305	8,003,380	1,613,036
11 ..	25,197,351	12,741,881	13,343,924	19,244,847	7,349,365	1,396,150
18 ..	25,005,952	12,894,521	13,458,989	19,903,519	7,886,609	1,470,787
25 ..	24,897,286	12,945,204	13,600,419	19,218,590	8,083,929	1,635,526
Mar. 3 ..	24,946,210	12,952,002	13,860,399	20,116,272	8,027,049	1,092,475
10 ..	24,088,800	13,039,092	13,726,554	19,711,423	8,582,012	1,601,149
17 ..	24,054,845	12,729,356	13,797,154	19,304,618	8,498,790	1,718,310
24 ..	23,832,766	12,610,790	13,835,755	19,102,068	8,342,599	1,738,246
31 ..	23,674,714	12,437,195	13,975,624	18,681,020	8,149,061	1,610,499
Apr. 7 ..	23,107,740	12,368,071	14,100,890	18,070,209	8,560,117	1,942,056
14 ..	22,422,203	12,290,539	13,638,089	17,849,018	8,179,441	1,608,463
21 ..	22,380,033	12,100,687	12,999,204	18,380,033	7,649,069	1,649,060
28 ..	21,487,974	11,910,361	12,783,749	17,699,588	7,686,634	1,877,017
May 5 ..	21,487,974	11,910,361	12,783,749	17,699,538	7,686,634	1,877,017
12 ..	20,545,529	11,672,364	12,258,444	17,442,974	7,218,833	1,763,871
19 ..	19,385,119	11,706,007	12,163,609	17,260,226	6,909,386	1,680,480
26 ..	18,588,492	11,598,719	11,900,864	17,938,774	6,599,676	1,596,210
June 2 ..	18,282,807	11,191,024	11,791,799	16,985,565	6,173,783	1,459,051
9 ..	17,428,118	11,072,236	11,572,259	16,989,587	5,958,996	1,442,041
16 ..	16,864,692	10,693,389	11,389,389	16,105,556	5,538,830	1,665,076
23 ..	16,821,969	10,223,276	11,138,434	15,319,947	5,067,682	1,739,481
July 7 ..	16,627,125	9,883,812	10,921,057	14,671,491	4,548,395	1,601,540
14 ..	16,795,836	9,693,954	10,695,884	14,557,417	4,123,242	1,401,804
21 ..	16,945,426	9,544,793	10,310,824	14,326,547	3,706,020	1,512,608
28 ..	17,802,024	9,607,448	10,071,383	14,358,384	3,219,947	1,163,961
Aug. 4 ..	19,006,951	9,780,130	9,786,684	14,264,107	2,900,039	1,318,398
11 ..	19,383,879	9,846,131	9,526,934	14,368,664	2,565,150	1,182,381
18 ..	20,313,484	9,801,183	9,357,964	14,107,285	2,119,789	1,299,462
25 ..	21,332,818	9,900,424	9,263,874	13,614,301	1,756,084	1,346,814
Sept. 1 ..	22,049,988	9,907,517	9,196,144	13,803,771	1,431,300	1,081,223
8 ..	22,241,708	9,939,917	9,056,744	13,555,731	1,308,873	929,618
15 ..	23,144,157	9,851,213	8,929,404	13,546,294	1,344,890	1,078,178
22 ..	23,871,973	9,816,247	8,872,808	13,403,925	1,463,612	1,077,600

PITTSBURG BANKS.—(CAPITAL, $4,160,200.)

	Loans.	Specie.	Circulation.	Deposits.	Due banks
Jan. 16.....	7,202,367	980,530	2,080,548	1,527,548	304,562
23.....	7,060,471	1,022,273	2,012,478	1,545,103	255,076
30.....	6,989,320	1,003,037	1,896,863	1,555,686	265,804
Feb. 6.....	6,984,209	997,589	1,907,328	1,609,692	230,426
13.....	6,939,052	951,638	1,883,093	1,602,311	191,222
20.....	6,957,621	988,306	1,868,598	1,643,703	175,051
27.....	7,022,280	991,877	1,821,283	1,760,957	224,434
Mar. 5.....	7,101,459	1,018,255	1,871,873	1,768,879	273,343
12.....	7,035,624	999,093	1,901,543	1,651,216	197,007
19.....	7,066,774	1,004,750	1,945,328	1,636,887	198,556
26.....	7,038,891	981,560	1,980,732	1,572,130	192,411
Apr. 2.....	7,166,377	1,005,415	2,085,583	1,601,167	191,101
9.....	7,206,737	990,962	2,072,373	1,693,230	171,100
16.....	7,159,568	1,018,445	2,071,878	1,651,362	187,255

	Loans.	Specie.	Circulation.	Deposits.	Due banks.
23.....	7,278,279	1,156,278	2,024,138	1,897,498	240,143
30.....	7,284,761	1,141,373	1,995,053	1,913,537	175,671
May 5.....	7,284,761	1,141,373	1,995,053	1,913,537	175,671
14.....	7,263,197	1,088,851	2,011,258	1,890,810	215,765
19.....	7,196,493	1,133,719	2,022,988	1,906,773	213,944
27.....	7,190,192	1,122,057	1,952,683	1,918,321	206,316
June 4.....	7,282,963	1,089,751	1,907,248	1,919,903	277,978
11.....	7,214,889	1,126,308	1,919,688	1,892,300	240,728
18.....	7,247,541	1,102,446	2,029,558	1,743,915	271,062
25.....	7,291,888	1,150,248	2,048,358	1,779,752	315,858
July 14.....	7,310,663	1,068,974	2,071,443	1,818,515	239,832
21.....	7,294,391	1,083,220	2,073,593	1,846,879	205,011
28.....	7,215,944	1,098,084	2,069,803	1,861,817	167,671
Aug. 6.....	7,203,057	1,130,002	2,018,628	1,860,348	234,346
13.....	7,158,260	1,123,027	1,990,498	1,853,759	175,924
20.....	7,093,091	1,152,198	2,007,653	1,859,418	239,790
27.....	7,047,761	1,167,384	2,064,758	1,843,750	232,181
Sept. 3.....	7,145,776	1,159,423	2,124,008	1,905,667	240,419
10.....	7,139,564	1,225,151	2,196,573	1,904,823	222,155
17.....	7,121,227	1,188,707	2,299,488	1,819,248	210,274
24.....	7,107,947	1,246,526	2,341,363	1,831,865	238,058

ST. LOUIS BANKS.

	Exchange.	Circulation.	Specie.
Jan. 7.....	4,373,543	538,555	662,755
14.....	4,467,513	520,805	642,497
21.....	4,352,699	502,175	580,754
28.....	4,290,563	495,880	563,335
Feb. 4.....	4,149,236	457,095	590,502
11.....	4,048,593	424,605	625,043
18.....	3,906,896	391,605	639,450
25.....	3,951,433	399,085	680,877
March 3.....	3,891,263	395,905	689,301
10.....	3,998,827	377,935	651,303
17.....	3,963,924	377,355	641,252
24.....	3,880,915	356,245	664,179
31.....	3,790,291	340,095	685,984
April 7.....	3,862,454	344,630	657,321
14.....	3,868,345	325,950	676,858
21.....	3,852,614	314,360	601,014
28.....	3,694,877	306,750	678,234
May 5.....	3,609,648	301,300	746,176
12.....	3,683,644	294,115	808,918
19.....	3,695,707	285,140	826,793
26.....	3,767,986	278,540	671,669
June 2.....	3,879,617	255,210	627,942
9.....	3,823,735	253,780	656,358
16.....	3,888,763	244,850	682,917
23.....	3,967,032	235,935	705,764
30.....	3,825,423	206,749	804,983
July 7.....	3,736,695	199,385	791,729
14.....	3,392,096	152,025	684,358
21.....	3,679,192	191,875	752,397
28.....	3,625,333	177,620	658,852
Aug. 4.....	3,526,098	173,310	633,795
11.....	3,540,196	176,115	687,310
18.....	3,560,267	188,375	714,046
25.....	3,599,470	220,605	728,545
Sept. 1.....	3,588,644	222,600	700,897
8.....	3,630,708	233,190	714,496
15.....	3,778,135	240,560	709,193
22.....	3,814,863	253,605	679,617
29.....	3,995,986	240,300	722,368

PROVIDENCE BANKS.—(CAPITAL, $14,908,000.)

	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 2.....	19,144,854	315,917	2,011,336	2,635,486	938,508
Feb. 6.....	19,144,846	326,297	1,958,540	2,566,168	921,779
Mar. 3.....	19,009,255	342,965	1,917,593	2,598,169	970,971
Apr. 1.....	18,686,210	343,992	1,952,022	2,640,170	1,040,260
May 7.....	18,893,653	448,413	2,045,590	2,773,248	1,356,071
June 4.....	18,891,907	422,726	1,938,254	2,844,012	1,210,104
July 2.....	19,243,061	430,128	2,158,904	2,790,587	1,115,951
Aug. 6.....	19,530,296	397,286	2,218,347	2,748,678	1,169,800
Sept. 3.....	19,566,718	357,138	2,128,957	2,526,943	1,082,109
Oct. 1.....	19,834,317	337,851	2,183,347	2,590,103	894,204

BOSTON BANK DIVIDENDS.

COMPILED FOR THE MERCHANTS' MAGAZINE BY JOSEPH G. MARTIN, COMMISSION STOCK BROKER, NO. 6 STATE-STREET, BOSTON, AND AUTHOR OF "TWENTY ONE YEARS OF THE BOSTON STOCK MARKET."

The following table presents the capital of each bank, together with the last two semi-annual dividends, and the amount paid October 1. Also, the market value of each stock, DIVIDEND OFF, April and October, 1859, and April and October, 1860.

The only changes in the regular dividends since April are an increase of ½ per cent by the Market and Mechanics', and a decrease of ½ per cent by the Eagle Bank. The Bank of Mutual Redemption, which commenced August 23, 1858, pays its first dividend of 2 per cent. The Bank of the Republic commenced operations February 2, 1860, and now pays its first dividend of 4 per cent for 8 months, on the old capital of $650.000, which has recently been increased to $1,000 000, as also the Eagle from $700,000 to $1.000,000. The Tremont increased, October 1, from $1,250.000 to $1,500,000, and the Columbian to $1,000.000. These changes were all authorized by the last Legislature. Under the General Banking Law we are shortly to have three new institutions—the "Mount Vernon," to be located in the new Parker Buildings, on Washington-street, the "Continental," in the new block, Washington-street, corner of Central-court, and another, the "East India," we believe, not definitely located. This will make seven banks under the new law, and a total of 46 banks in Boston, including the Pawners'.

Of the 42 banks in the table the regular dividends average 3.6 per cent. One bank divides 5 per cent, six 4½, nine 4, fifteen 3½, nine 3 per cent, one 2 per cent, and the Massachusetts pays 10 per cent. The usual dividend of the Massachusetts is 3 1-5 per cent, or $8 per share, but the extra amount now is from part proceeds of sale of banking house a short time since. It was the first bank in this State, (and second in the United States,) commencing business July 5, 1784, on which day the loans and discounts amounted to only $19,645. The bank was at first located opposite Park-street Church, near what is now called Hamilton-place. In April, 1792, the present site, then known as the "American Coffee House," was purchased for £1,450 (colonial currency,) or about $4,828, and the present edifice was erected in 1836. In January, 1795, an extra dividend of $10,000 was made, "from sale of old banking house." The original capital was $300,000, in 600 shares of $500 each, of which but $253,500 appears to have been paid in, and the next year this was reduced to $100,000.

The capital remained at that figure for five years, when, in June, 1791, it was increased to $200,000; July, 1792, to $400,000; December, 1807, to $800,000, and in June, 1810, to $1,600,000. This remained the capital for eleven years, when, in April, 1821, it was reduced 50 per cent, (to $800,000, the present capital,) and the par value of the shares made $250. The present cashier, JAMES DODD, Esq., has held his position for a quarter of a century:—

Banks.	Capital stock.	Dividends 1859. Apr.	Oct.	1860. Apr.	Oct.	Amount. Oct. 1, 1860.	Value of stocks, divid. off. 1859. April.	Oct.	1860. April.	Oct.
Atlantic	$500,000	3½	3½	3½	3½	$17,500	103½	106½	104½	107
Atlas	1,000,000	4	4	4	4	40,000	106	104	108	110
Blackstone	750,000	3½	3½	3½	3½	26,250	103½	104½	105	107½
Boston, (par $50)	900,000	4	4	4	4	36,000	120	120½	132	129
Boylston	400,000	4½	4½	4½	4½	18,000	115½	118½	118½	120
Broadway	150,000	3	3	3	3	4,500	98	98	98	99
City	1,000,000	3½	3	3½	3½	35,000	105	105	105	105½
Columbian	750,000	3½	3½	3½	3½	26,250	105½	106½	106½	108½
Commerce	2,000,000	3½	3½	3½	3½	70,000	102	101½	105½	107½
Eagle	700,000	4	4	4	3½	24,500	111	111	111	111
Eliot	600,000	3½	3½	3½	3½	21,000	104	106½	107	107
Exchange	1,000,000	5	5	5	5	50,000	123	128	130	131
Faneuil Hall	500,000	4	4	4	4	20,000	111	112	113	114½
Freeman's	400,000	4	4	4½	4½	18,000	115	113	115	117
Globe	1,000,000	4	4	4	4	40,000	116	116	116	120
Granite	900,000	3	3	3½	3½	31,500	100	101½	105½	106½
Hamilton	500,000	4	4½	4½	4½	22,500	120	121½	125½	126
Hide & Leather	1,000,000	3	3	3	3	30,000	104	105	103	107½
Howard	500,000	3	3½	3½	3½	17,500	101	102	103	106½
Market, (par $70)	560,000	3½	3½	3½	4	22,400	114	112	112½	111½
Massa'tts, ($250).	800,000	$8	$8	*$8	$25	80,000	108	105	103	110
Maverick	400,000	3½	3	3½	3½	14,000	100	99	100	103
Mechanics'	250,000	4	4	4	4½	11,250	114	111	111	113
Merchants'	4,000,000	3	3	3	3	120,000	102	100½	100½	102½
Metropolis	200,000	3	3	4	4	8,000	97	99½	101	101
Mutual Redemp'n	561,700	.	.	.	2	11,234	...	...	95	90
National	750,000	3½	3½	3½	3½	26,250	100½	100½	100	103
New England	1,000,000	3½	3½	3½	3½	35,000	111	110½	110	113½
North	860 000	3	3	3	3	25,800	98	97½	97	99
North America	750,000	3	3	3½	3½	26,250	101	104	105½	106
Republic	650,000	.	.	new	4	26,000	...	...	100	100
Revere	1,000,000	.	2	3	3	30,000	new	99½	101½	103½
Safety Fund	1,000,000	.	4	3	3	30,000	100	101	101½	103½
Shawmut	750,000	3	3	3	3	22,500	100½	101	100½	100½
Shoe & Leather	1,000,000	4½	4½	4½	4½	45,000	121	124½	124½	127
State, (par $60)	1,800,000	3½	3½	3½	3½	63,000	115	113	118½	116
Suffolk	1,000,000	5	4	4½	4½	45,000	127½	127	127	128½
Traders'	600,000	3	3	3	3	18,000	99	98½	99	100½
Tremont	1,250,000	4	4	4	4	50,000	113	114½	116	119
Union	1,000,000	3½	3½	4	4	40,000	110½	111½	111	113½
Washington	750,000	4	4	3	3	22,500	108	106½	107	107
Webster	1,500,000	3½	3½	3½	3½	52,500	103½	106	107	108½
Total, Oct., 1860.	36,981,700					$1,373,184				
Total, Apr., 1860.	35,770,000					1,281,000				
Total, Oct., 1859.	34,360,000					1,211,950				
Total, Apr., 1859.	33,160,000					1,185,950				

* The dividend of the Massachusetts Bank was 3 1-5 per cent (par $250) equal to $8 per share, in April, and now 10 per cent, or $25 per share, is divided, the extra being part proceeds of real estate sold.

MISCELLANEOUS DIVIDENDS.

The following dividends and interest are also payable at the dates given. In addition to these, early in October is the usual period for dividends by the Boylston, City, Manufacturers', Merchants', Neptune, Prescott, and Washington insurance companies, as also the Boston Exchange and Hamilton woolen companies, quarterly, and Columbian Manufacturing—adding, in round numbers, over $250,000, and making the total to be paid out in October, fully $2,500,000.

Payable.	Names of companies, &c.,	Capital.	Dividends. April.	October.	Amount.
2.	Bangor city bonds, 1874	$500,000	3	3	$15,000
1.	Boston city bonds	interest.	.	.	63,000
1.	Boston and Sandwich Glass Co	400,000	5	5	20,000
1.	Boston Manufacturing Co	450,000	4	5½	24,000
1.	Boston Steam Flour Mills bonds	100,000	3	3	3,000
1.	Cambridge (horse) Railroad	300,000	4½	4½	13,500
1.	Chelsea (horse) Railroad	70,000	4	4	2,800
1.	Eliot Insurance Co	200,000	5	5	10,000
1.	National Insurance Co	500,000	10	16	80,000
1.	Lowell and Lawrence Railroad	200,000	3	3	6,000
1.	Manchester and Lawrence Railroad bonds.	33,800	3	3	1,014
1.	Massachusetts State bonds	interest.	.	.	8,625
1.	Michigan Central Railroad bonds	interest.	4	4	165,000
1.	Michigan Central Railroad bonds	principal.	.	.	470,000
1.	New England Glass Co	500,000	6	5	25,000
1.	Northampton Bridge Co	33,000	1¼	1¼	578
1.	Northern N. Hampshire Railr'd bonds, 1864	63,700	3	3	1,911
1.	Northern N. Hampshire Railr'd bonds, 1874	192,600	3	3	5,778
1.	Old Colony Railroad bonds	134,500	3	3	4,035
1.	Philadelphia, Wilmington, & Balt. Railroad	5,600,000	3	3½	196,000
1.	Shoe & Leather Fire & Marine Insurance	200,000	5	5	10,000
	Total				$1,125,241

The $470,000 of Michigan Central bonds is the balance of $535,000 due October 1. The company announced its readiness, a month ago, to pay these bonds; but holders seem little disposed to avail themselves of the offer, while their money is drawing 8 per cent.

THE REVENUE OF CUBA.

An official statement has recently been made of all the money collected during 1859 by the government, which forms the regular revenues of the Island. The sum total is $19,202,087 96¼, as follows:—

Taxes and imposts	$8,739,878 65¼	Accidental income	419,743 96¼
Custom-houses	11,550,043 84¼	Sundries	74,565 54¼
Interdicted income	1,068,789 68		
Lottery	2,167,579 00	Total	$19,202,087 96¼
State property	181,486 76¼		

The amounts collected in 1858 under the same heads were $18,293,364 68, thus making a difference of $908,822 28¼ in favor of 1859. The Havana treasury department collected in 1859 out of the gross amount $13,099,682 74¼. The remaining $6,102,404 21¼ were collected in the other parts of the Island, thus showing that Havana and its jurisdiction alone yields nearly two-thirds of the whole amount of revenue.

STATISTICS OF TRADE AND COMMERCE.

WINE PRODUCT OF FRANCE.

The official reports of France show the production of wines to have been for several periods as follows, in hectoliters :—

1788.....hectoliter	25,000,000	1852.....hectoliter	28,636,000
1808.....	28,000,000	1853.....	22,662,000
1829.....	30,973,000	1854.....	10,874,000
1847.....	54,316,000	1855.....	15,175,000
1849.....	35,555,000	1856.....	21,294,000
1850.....	45,266,000	1857.....	35,410,000
1851.....	39,429,000	1858.....	45,805,000

The most of this is used in the country. The following shows the proportion :

	Toll free consumption.	Used for brandy and vinegar.	Taxed consumption.
1849.....hectoliter	20,847,000	11,100,000	17,000,000
1853.....	16,673,000	3,960,000	9,000,000
1855.....	10,342,000	1,725,000	3,500,000

The exportation of wines does not vary so much as the production. For the ten years ending with 1836, the average was 1,175,000 hectoliters ; for the ten years to 1846, 1,362,000 hectoliters ; and in 1851 and 1852 it rose to 2,000,000, from which figures there was a subsequent decline, as seen in the following table of annual exports :—

1851.....	2,251,000	1856.....	1,250,000
1852.....	2,420,000	1857.....	1,098,000
1853.....	1,956,000	1858.....	1,580,000
1854.....	1,815,000	1859.....	1,546,000
1855.....	1,195,000		

In the last few years France has been an importer of wines as follows :—

1853.....hectoliter	4,500	1856.....hectoliter	341,000
1854.....	121,400	1857.....	626,000
1855.....	417,000	1858.....	113,000

The average value of wine, as given by the "commission of values," is for wine in bottles—a general average—while for casks the price varies according to the destination :—

	Ordinary wine of the Gironde in bottles.	Wine of the Gironde in csks. to Engl'd.
1850, per hectoliter.....francs	120	200
1851, "	120	200
1852, "	144	240
1853, "	216	360
1854, "	320	400
1855, "	310	400
1856, "	450	420
1857, "	350	420
1858, "	360	420

In the general French trade reports the value of the wine export is as follows :

	Official value. Fr.	Actual value. Fr.		Official value. Fr.	Actual value. Fr.
1851.....	32,006,000	25,541,000	1855.....	17,222,000	42,624,000
1852.....	31,375,000	39,682,000	1856.....	18,695,000	53,868,000
1853.. ...	29,784,000	51,141,000	1857.....	19,961,000	47,452,000
1854.....	23,511,000	65,433,000	1858.....	22,815,000	55,241,000

The following table shows the production, consumption, and export of brandy:

	Made.	Import.	Taxed for domestic consump.	Export.
1841.....hectoliter	1,042,695	.....	510,486	214,536
1846.....	752,219	.....	600,458	113,502
1851.....	1,035,600	.....	622,805	385,245
1852.....	693,896	13,000	648,610	337,884
1853.....	726,318	12,800	644,352	268,127
1854.....	914,140	61,000	601,702	155,111
1855.....	654,001	202,888	714,815	153,116
1856.....	766,786	177,899	768,395	192,179
1857.....	947,379	376,549	825,589	179,616

The general average price of brandy for export, per hectoliter, was as follows:

1851.....francs	113	1855.....francs	230
1852.....	146	1856.....	280
1853.....	249	1857.....	360
1854.....	240	1858.....	240

NEW YORK CITY TRADE.

The imports and exports of New York city, since the regular returns of the federal government were kept, have been as follows:—

	Imports.	Exports.		Imports.	Exports.
1821.....	$23,629,246	$13,160,918	1841.....	$75,713,426	$33,139,833
1822.....	35,445,628	17,100,482	1842.....	57,875,604	27,576,778
1823.....	29,421,349	19,033,990	1843.....	31,356,540	16,762,664
1824.....	36,118,723	22,897,134	1844.....	65,079,516	32,861,540
1825.....	49,639,174	35,259,261	1845.....	90,909,085	36,175,298
1826.....	38,115,630	21,947,791	1846.....	74,254,283	36,935,413
1827.....	38,719,644	23,834,137	1847.....	84,167,352	49,844,363
1828.. ...	41,927,792	22,777,649	1848.....	94,525,141	53,551,157
1829.....	34,743,307	20,119,011	1849.....	92,567,369	45,963,100
1830.....	35,624,070	19,697,983	1850.....	111,123,524	52,712,789
1831.....	57,077,417	25,535,144	1851.....	141,546,538	56,007,019
1832.....	53,214,402	26,000,945	1852.....	132,329,306	87,484,456
1833.....	55,918,449	25,895,117	1853.....	178,270,999	78,206,290
1834.....	73,186,594	25,512,014	1854.....	195,427,933	122,534,646
1835.....	88,191,305	30,345,264	1855.....	164,776,511	113,731,238
1836.....	118,253,416	28,920,638	1856.....	210,162,454	119,111,500
1837.....	79,301,722	27,333,419	1857.....	226,184,167	126,606,688
1838.....	68,453,206	23,008,471	1858	171,473,336	100,667,890
1839.....	99,882,438	33,268,099	1859.....	220,247,307	106,443,541
1840.....	60,440,750	34,264,080	1860.....	238,718,718	138,036,550

TRADE OF CINCINNATI.

The returns of the trade of Cincinnati for the present year contrast very favorably with those of the previous year. The aggregates for nine years are as follows:—

	Imports.	Exports.		Imports.	Exports.
1851-2....	$41,256,199	$33,234,896	1856-7....	$77,090,146	$55,642,171
1852-3....	51,230,644	36,266,108	1857-8....	80,144,747	52,906,505
1853-4....	65,730,029	45,432,780	1858-9....	96,213,274	66,007,707
1854-5....	67,501,341	38,777,394	1860.....	107,647,216	77,037,188
1855-6....	75,295,901	50,744,786			

These aggregates for the exports are of the enumerated articles. To this is added from thirty to fifty millions for unenumerated articles. The details of the imports are as follows :—

VALUE OF PRINCIPAL IMPORTS INTO THE PORT OF CINCINNATI, FOR THE YEARS ENDING AUGUST 31, 1859 AND 1860.

Articles.	Quantity.	Average price.	Total value.	Total last year.
Apples, green.....bbls.	95,811	$2 75	$263,480	$42,929
Ale, beer, and porter.....	6,933	4 50	31,198	38,453
Buffalo robes.....bales	5,427	38 00	206,226	151,596
Beef.....bbls.	1,393	13 00	17,809	22,400
" .....tcs.	633	18 00	11,394	9,139
Bagging..... ..... pcs.	1,789	4 00	7,156	8,428
Barley.....bush.	352,828	76	268,149	264,584
Beans.....	20,352	1 00	20,352	66,935
Butter..... bbls.	15,209	28 00	425,852	250,850
" .....fir. and kgs.	34,468	19 00	344,680	219,023
Blooms.....tons	1,364	60 00	81,840	160,680
Boots and shoes.....cases	58,209	47 00	2,770,368	2,279,484
Bran, middlings, etc.....sks	161,638	90	145,474	138,621
Crockery ware, etc.....crates	3,845	50 00	192,250	145,700
Candles.....bxs.	3,227	7 00	22,589	19,278
Corn .....bush.	1,346,208	50	673,104	797,315
Corn meal.....	4,203	3 25	13,660	14,622
Cider.....bbls.	1,841	6 00	11,046	2,220
Cheese.....cks.	110	22 00	2,420	1,100
" .....bxs.	227,095	2 80	635,865	625,100
Cotton.....bales	78,013	58 00	4,524,754	2,896,868
Coffee.....sks.	129,930	22 00	2,858,460	2,510,310
Codfish.....drums	3,728	29 00	108,112	69,658
Cooperage.....pcs.	216,361	70	151,452	172,737
Cattle.....head	43,182	61 00	2,634,702	2,930,800
Cement and plaster..... ....bbls.	24,053	2 00	48,166	44,284
Eggs.....bxs. and bbls.	22,670	7 00	158,690	117,180
Flour..... .....bbls.	517,229	4 60	2,379,253	2,790,865
Feathers.....sks.	5,655	36 00	203,580	121,920
Fish, sundries.....bbls.	20,428	11 50	243,922	211,175
" " .....kgs. and kts.	12,561	2 75	34,542	29,002
Fruits, dried.....bush.	64,186	2 75	176,512	345,675
Grease.....bbls.	5,273	18 50	97,550	86,784
Glass.....bxs.	57,675	2 00	115,350	102,724
Glassware.....pkgs.	39,455	4 25	167,684	196,027
Hemp.....bdls. and bls.	5,876	18 00	105,768	219,564
Hides.....No.	169,203	3 80	642,970	594,168
" .....lbs.	91,417	13	11,884	8,499
Hardware.....bxs. and cks.	25,342	70 00	1,773,940	1,191,890
Hay .....bls.	56,547	3 25	183,778	106,371
Herrings.....bxs.	10,152	40	4,060	4,430
Hogs.....head	522,838	12 25	6,404,765	5,350,104
Hops.....bls.	5,314	21 00	111,594	105,168
Horses.....head	14,592	130 00	1,896,960	1,168,310
Iron and steel.....pcs.	397,466	1 30	516,705	388,128
" .....bdls.	95,443	3 30	314,978	575,110
" .....tons	8,378	70 00	586,460	626,290
Iron, pig.....tons	37,550	26 00	976,300	1,018,800
Lead.....pigs	62,039	5 75	356,896	299,262
Lard.....bbls.	47,499	23 50	1,116,226	1,128,776
" .....kgs.	11,319	5 50	62,254	45,166
Leather.....bdls.	19,626	14 50	257,577	314,795
Lemons.....bxs.	10,141	4 20	43,112	57,647
Lime .....bbls.	107,640	90	96,876	73,722
Liquors.....hhds. and pipes	1,535	180 00	276,300	523,010

Articles.	Quantity.	Average price.	Total value.	Total last year.
Merchandise and sundries ...pkgs.	115,391	35 00	40,386,850	33,070,100
" .....tons	4,404	620 00	2,730,480	2,592,220
Molasses .....bbls.	91,807	17 00	1,560,917	1,626,702
Malt .....bush.	117,593	90	105,833	60,690
Nails.....kgs.	134,086	4 00	536,344	554,960
Oils.....bbls.	24,844	28 00	695,632	503,300
Oranges.....bxs.	23,793	4 50	107,068	122,117
Oakum.....bls.	6,331	14 50	91,801	52,519
Oats.....bush.	894,515	43	384,641	306,735
Oil cake.....tons	189	24 00	4,536	816
Onions.....bbls. and sks.	7,147	1 75	12,508	2,683
Pork and bacon.....hhds.	4,662	80 00	372,960	402,090
" .....tcs.	3,882	25 00	97,050	52,776
" .....bbls.	25,456	16 00	407,296	637,445
" ... ...bxs.	1,290	32 00	38,800	27,450
" .....lbs.	23,250,222	7½	1,743,766	1,375,694
Potatoes.....bbls.	206,544	1 75	361,452	330,600
Pitch.....	728	3 75	2,730	2,063
Pimento, pepper, etc.....bags	5,882	10 00	58,820	95,220
Rye..... .....bush.	131,487	90	118,338	64,406
Rosin.....bbls.	10,904	2 75	29,887	26,274
Raisins and figs.....bxs.	38,984	3 00	116,952	137,348
Rope, twine, etc.....pkgs.	18,564	6 00	111,384	103,542
Rice.....tcs.	4,498	34 00	152,966	213,010
Sugar..... .....hhds.	40,551	89 00	3,609,039	4,503,030
" .....bbls.	37,950	20 00	759,000	567,180
" .....bxs.	630	55 00	34,650	74,415
Seed—flax.....bbls.	26,307	4 00	105,228	80,432
" grass and clover.....	28,224	14 00	395,136	290,462
" hemp.....	1,451	3 50	5,078	1,092
Salt.....	119,751	1 75	209,564	141,022
" .....sks.	61,058	1 10	67,164	48,791
Shot..... .....kgs.	3,602	20 00	60,040	41,360
Starch.....bxs.	36,661	2 75	100,817	125,450
Sheep.....head	25,069	2 00	50,138	42,112
Stearine.....bbls.	2,526	25 00	63,150	44,275
Tea.....pkgs.	16,916	45 00	761,220	904,080
Tobacco.....hhds.	6,261	100 00	626,100	532,800
" .....bbls. and bls.	7,238	9 50	68,771	65,275
" .....bxs. and kgs.	49,552	18 00	891,936	1,126,600
Tallow.....bbls.	7,075	25 00	176,875	139,875
Tar	3,196	3 00	9,588	13,965
Turpentine..... ...	6,221	16 00	99,536	110,112
Wines.....bbls. and ¼ casks	5,946	60 00	356,760	303,480
" .....bskts. and bxs.	14,034	8 00	112,240	129,960
Wheat.....bush.	1,057,118	1 15	1,215,686	1,465,887
Wool.....bls.	9,513	20 00	190,260	161,280
Whisky..... bbls.	433,168	9 00	3,898,512	4,388,177
Yarns, cotton.....pkgs.	12,841	1 50	18,861	29,534
" ....lbs.	2,455	20	491	.....
Lumber.....feet	77,000,000	1½	1,155,000	2,031,250
Coal.....bush.	17,600,000	9	1,584,000	929,452
Shingles*.....No.	39,000,000	3 00	117,000	112,500
Coopers' stuff, wood, and stone, estimated	.....	....	590,000	475,000
Various articles, not specified above, estimated value.....	.....	....	4,300,000	4,000,000
Totals.....			$107,647,216	$96,213,874

* Per thousand.

VALUE OF PRINCIPAL EXPORTS FROM THE PORT OF CINCINNATI FOR THE YEARS ENDING AUGUST 31ST, 1859 AND 1860.

Articles.	Quantity.	Average price.	Total value.	Total last year.
Apples, green ..... bbls.	25,092	$3 00	$75,276	$3,860
Alcohol	27,302	18 00	491,436	539,741
Ale, beer, and porter	22,581	4 50	101,614	98,334
Buffalo robes ..... bales	5,362	38 00	203,756	63,152
Beef ..... bbls.	18,888	13 00	245,544	97,608
Beef ..... tcs.	3,866	18 00	69,588	44,403
Bagging ..... pcs.	752	4 00	3,008	16,685
Barley ..... sacks	47,580	2 00	95,160	19,214
Beans ..... bbls.	3,445	3 50	12,057	49,068
Brooms ..... doz.	24,641	2 00	49,282	33,625
Butter ..... bbls.	4,056	26 00	105,456	48,210
Butter ..... firkins & kegs	48,268	8 00	386,144	286,503
Bran, shorts, &c ..... sacks	43,186	1 80	77,734	20,211
Boots and shoes ..... cases	86,281	47 00	1,705,207	2,257,220
Crockery ware, &c ..... crates	1,588	50 00	79,400	79,400
Chairs ..... doz.	6,586	16 00	105,376	163,488
Candles ..... bxs.	176,718	6 30	1,113,223	1,386,473
Corn ..... sacks	48,867	1 10	53,753	42,755
Corn meal ..... bbls.	782	3 00	2,346	1,485
Cheese ..... casks	34	22 00	748	506
Cheese ..... bxs.	172,753	3 15	544,171	460,517
Cotton ..... bales	71,344	62 00	4,423,328	2,692,235
Coffee ..... sacks	90,165	21 00	1,893,465	1,199,109
Cooperage ..... pcs.	119,572	1 00	131,529	146,018
Cattle ..... head	20,593	61 00	1,256,173	1,605,820
Cement and plaster ..... bbls.	6,201	2 00	12,402	10,955
Eggs ..... bxs. and bbls.	8,528	11 50	98,072	50,750
Flour ..... bbls.	478,308	4 60	2,200,216	2,866,909
Feathers ..... sacks	6,824	42 00	286,608	226,133
Fish, sundry ..... bbls.	10,792	12 00	129,504	88,956
Fish, sundry ..... kegs and kits	11,138	3 00	33,414	10,455
Fruit, dried ..... bush.	15,498	2 80	43,394	138,631
Furniture ..... pcs. & pkgs.	119,014	29 00	3,451,406	3,937,715
Grease ..... bbls.	1,865	20 00	37,300	89,800
Glass ..... bxs.	14,309	2 15	30,764	28,197
Glassware ..... pkgs.	7,690	4 40	33,440	51,972
Hemp ..... bund. & bales	2,039	25 00	50,975	67,440
Hides ..... No.	146,166	4 25	621,205	587,771
Hides ..... lbs.	38,653	13	5,024	26,938
Hardware ..... boxes & casks	7,947	70 00	556,290	518,910
Hay ..... bales	3,449	3 25	11,209	9,753
Hogs ..... head	13,492	12 00	161,904	143,072
Hops ..... bales	1,794	20 00	35,880	30,640
Horses ..... head	9,217	130 00	1,198,210	753,680
Iron and steel ..... pieces	575,268	1 40	805,375	746,193
Iron ..... bundles	129,030	3 40	438,702	385,375
Iron ..... tons	6,934	72 00	499,248	569,376
Iron, pig	4,667	26 00	121,342	123,597
Lard ..... bbls.	60,658	26 00	1,577,108	1,115,850
Lard ..... kegs	55,704	6 00	334,206	287,264
Leather ..... bundles	24,018	17 00	408,406	361,800
Lime ..... bbls.	6,192	1 10	6,811	5,885
Molasses	51,814	17 00	880,838	679,986
Malt ..... bush.	209,487	1 00	209,487	142,359
Nails ..... kegs	73,528	4 50	330,876	265,959
Oil ..... bbls.	50,846	38 00	1,932,148	1,357,818
Oats ..... bush.	111,820	43	48,033	16,449
Oil cake ..... tons	1,018	25 00	55,990	39,975
Onions ..... bbls. and sacks	4,317	2 00	8,634	6,410

Articles.	Quantity.	Average price.	Total value.	Total last year.
Pork and bacon.....hhds.	52,522	86 00	4,517,752	3,371,304
Pork and bacon .....tcs.	39,833	26 00	1,035,658	814,360
Pork and bacon .....bbls.	104,374	17 00	1,774,358	1,906,325
Pork and bacon..... boxes	19,104	33 00	650,432	262,720
Pork and bacon, in bulk .....lbs	345,932	8	27,674	40,656
Potatoes..... ...bbls.	97,899	2 00	195,798	112,980
Rye..... .....bush.	59,177	95	56,218	24,493
Rope, twine, &c .....pkgs.	18,890	6 25	118,062	126,918
Sugar.....hhds.	32,433	91 00	2,951,403	2,624,006
Seed, flax.....bbls.	1,144	4 50	5,148	4,005
Seed, grass and clover	16,642	15 00	249,630	175,032
Soap.....boxes	68,497	4 00	273,988	251,160
Salt .....bbls.	59,046	2 25	132,853	99,916
Salt ..... sacks	12,502	1 20	15,002	23,050
Starch .....boxes	43,054	3 00	129,162	117,771
Sheep.....head	6,724	2 00	13,448	10,050
Stearine.....bbls.	3,383	25 00	84,575	37,650
Sundry merchandise.....pkgs.	1,702,220	9 30	16,171,090	12,770,216
Sundry merchandise.....tons	17,957	630 00	11,312,910	7,365,330
Sundry liquors.....bbls.	13,110	35 00	458,850	974,610
Sundry manufactures.....pcs.	27,008	4 00	108,032	108,920
Spices.....boxes	5,010	2 00	10,020	9,340
Tobacco .....hhds.	6,124	105 00	642,920	471,765
Tobacco .....bbls. and bdls.	4,074	10 50	42,777	58,779
Tobacco ....boxes and kegs	49,882	20 00	997,640	990,660
Tallow.....bbls.	927	26 00	20,102	15,579
Vinegar.....	10,947	4 00	43,788	41,056
Wines.....baskets and boxes	14,406	9 00	129,654	128,745
Wheat .....bush.	321,495	1 17	376,149	781,818
Wool.....sacks and bales	10,239	24 00	245,736	220,056
Whisky.. .....bbls.	389,810	9 00	3,508,790	3,510,064
White lead .....kegs	65,166	2 00	130,332	155,466
Castings.....pcs.	78,285	4 50	342,282	330,849
Castings.....tons	5,134	80 00	410,720	341,760
Various articles of merchandise and manufactures not specified above, estimated value.....			42,600,000	41,000,000
Total.....			$119,637,188	$107,007,770

BRITISH MERCHANT SHIPPING.

In the year 1859, 939 vessels, of 185,970 tons, were built and registered in the United Kingdom. This is above the average of the years 1845–54, but less than in any other year since 1854; less than in 1858 by 61 vessels, and the tonnage by 22,110 tons; but the fact is that in 1855 a very great increase of ship building began, and that extraordinary increase is not now maintained. Of the build of 1859, 789 (of 147,967 tons) were sailing vessels, and 150 (of 38,003 tons) steam vessels; and again classifying them, 34 of the 789 sailing vessels, but 106 of the 150 steamers, were of iron. In addition to these home built vessels there were also registered here, in 1859, 18 colonial built vessels (British North American) of 8,292 tons. On the other hand, 671 vessels belonging to the United Kingdom, of 170,487 tons, were wrecked, and 23 more, of 8,775 tons, broken up, so that the bulk of the new build is absorbed in replacing wrecks. At the close of the year there stood registered in the United Kingdom, including the Isle of Man and Channel Islands, 27,602 vessels, of 4,693,181 tons. The

following table will show at a glance how this aggregate of our mercantile marine is made up, and we add a like account of vessels registered in the colonies also at the end of the year 1859:—

	Sailing vessels.		Steam vessels.	
United Kingdom.	Vessels.	Tons.	Vessels.	Tons.
Not over 50 tons	9,690	297,197	761	17,313
Above 50 tons	16,004	3,829,148	1,157	419,523
	25,684	4,226,345	1,918	436,836
Colonies.				
Not over 50 tons	4,751	129,166	96	2,854
Above 50 tons	4,201	638,012	182	27,077
	8,952	767,628	278	30,051

Comparing ports with reference to the vessels registered here, of sailing vessels not above 50 tons 678 (23,216 tons) belong to the port of London, and 276 (9,804 tons) to Liverpool; but of those above 50 tons only 1,825 (687,407 tons) belong to London, and 1,928 (950,531 tons) to Liverpool. Of the steamers 516 (188,220 tons) belong to London, and only 204 (58,786 tons) to Liverpool. London is ahead in number of vessels, Liverpool in amount of tonnage.

MILK TRADE.

In addition to the supply from domestic swill fed manufacture, the city of New York receives, by railroad, 180,000 quarts of milk per day; paying for the same, at seven cents per quart, a yearly aggregate of nearly $5,000,000. This supply is divided among the different roads as follows:—

New Jersey Central carries, daily.....quarts	5,000
New York and New Haven	4,000
Long Island	10,000
Hudson River	18,000
Erie	66,000
Harlem	80,000

The Harlem Railroad derives an annual revenue of $250,000 from this source.

IMPORTS OF HAMBURG.

The following is the total value in mark banco of the trade of Hamburg for the undermentioned years:—

1845 .....mark banco	291,881,390	1852 .....mark banco	392,028,820
1846	281,665,730	1853	443,879,530
1847	301,740,770	1854	530,668,030
1848	245,141,950	1855	528,558,190
1849	293,826,640	1856	654,772,080
1850	353,136,070	1857	688,849,300
1851	373,277,940	1858	502,206,800

The decrease of 1858 shows the effect of the crisis of 1857.

GUTTA PERCHA.

Gutta percha differs from caoutchouc in its external characters, being very solid and unyielding at common temperatures, having something of the character of horn, but being quite plastic at two hundred and twelve degrees, at which temperature it can be pressed and moulded into any required form, from the simplest form of a tumbler or plate to the richest carving of a picture frame, and the minute lines of a medal.

TRADE IN BREADSTUFFS OF THE CITY OF NEW YORK.

MONTHLY TABLE OF EXPORTS TO ALL FOREIGN PORTS, FROM SEPT. 1 TO AUG. 31, FOR THE FOLLOWING YEARS.

FLOUR—BARRELS.

	1859–60.	1858–59.	1857–58.	1856–57.	1855–56.	1854–55.
September..	79,422	92,851	80,776	103,202	111,471	24,302
October	141,157	140,238	169,506	193,896	193,961	34,687
November...	126,641	75,906	171,376	244,639	221,373	19,757
December ..	139,589	58,266	104,584	205,808	207,052	56,188
January.....	49,138	30,930	125,720	110,546	180,839	72,794
February ...	34,635	36,120	108,982	94,305	126,048	30,244
March	69,193	49,140	73,553	119,655	89,411	22,474
April.....	83,445	71,168	124,790	80,128	74,375	40,930
May	103,810	65,492	111,604	78,685	124,952	37,608
June.....	177,877	56,300	162,877	53,188	329,348	20,824
July	221,607	11,342	173,308	59,919	293,185	33,087
August.....	289,236	75,006	140,708	58,869	217,754	36,240
Total.....	1,465,250	762,759	1,547,794	1,402,850	2,169,769	459,145
Export, from Sept. 1 to Aug. 31, in 1847–48.....bbls.						515,222
" " " 1846–47.....						2,154,161
" " " 1845–46.....						883,350

WHEAT—BUSHELS.

September..	.....	182,890	629,622	1,090,029	277,583	. ...
October	79,839	174,670	694,241	1,829,131	947,569	16,953
November...	144,408	124,815	910,269	2,057,913	1,214,102	13,728
December ..	117,112	9,787	468,325	1,464,201	1,011,826	108,032
January.....	50,196	10,759	180,631	239,994	360,531	41,541
February...	59,299	5,990	17,358	177,179	209,384	.....
March.....	25,842	600	33,257	270,061	143,374	3,643
April	175,878	1,567	127,743	133,708	79,159	.....
May	356,010	3,000	405,680	75,092	248,528	986
June.....	972,926	.....	1,171,513	130,698	910,765	1,485
July.....	1,401,791	9,026	672,939	182,980	1,291,599	12,675
August.....	1,743,045	14,184	385,298	112,509	1,214,167	61,806
Total.....	4,946,846	487,288	5,696,276	7,772,495	7,908,382	255,849
Export, from Sept. 1 to Aug. 31, in 1847–48.....bush.						304,939
" " " 1846–47.....						3,085,134
" " " 1845–46.....						822,084

CORN—BUSHELS.

September..	12,175	72,861	175,126	858,727	357,242	193,857
October	7,923	200,735	190,068	883,888	130,407	490,118
November...	2,610	93,178	87,634	380,632	206,279	880,573
December ..	9,086	15,560	49,190	237,540	332,165	750,583
January. ...	4,149	5,789	144,684	142,642	295,293	508,859
February....	23,561	20,775	256,797	311,701	221,608	320,097
March.....	70,321	19,298	412,406	681,560	401,202	383,834
April	105,786	21,701	456,814	357,528	557,506	168,314
May.....	483,930	16,739	143,331	135,993	348,795	86,307
June.....	877,573	19,480	109,529	21,678	300,716	437,828
July	175,386	33,684	19,263	18,557	97,636	773,435
August.....	147,371	16,729	13,244	76,089	256,657	333,414
Total.....	1,919,871	536,524	2,057,086	3,606,535	3,499,506	5,327,269
Export, from Sept. 1 to Aug. 31, in 1847–48..... ...bush.						2,477,363
" " " 1846–47.....						6,964,952
" " " 1845–46.....						783,393

NAUTICAL INTELLIGENCE.

SALES OF SHIPS.

The *Ship Owners' Circular* gives the following sales of vessels in the past month. Speculative operations in ship property have been less than during the previous month, consequently the values have been more regular. At the close, there is less disposition to pay the increased rates for tonnage :—

An a 1	N. York	built	ship,	1,200	tons	register;	10 years old,	in order for sea $45,000
1½	Maine	"		1,100	"	7	"	" 38,500
2	Maine	"		900	"	10	"	" 29,000
1½	Massach'st	"		620	"	9	"	" 23,000
1	N. York	"		1,050	"	9	"	" 23,000
2½	Massach'ts	"		550	"	24	"	" 9,000
2½	Maine	"		440	"	12	"	" 9,000
1½	Long Isl'd	built	bark,	406	"	4	"	" 17,000
1½	Massach'ts	"		360	"	6	"	" 14,500
2	Maine	"		440	"	4	"	" 10,000
2	Massach'ts	"		340	"	12	"	" 10,000
2	Massach'ts	"		338	"	7	"	" 8,000
2½	Maine	"		270	"	12	"	" 4,500
2½	Long Island	"		330	"	11	"	" 8,000
2½	Massach'ts	"		345	"	30	"	" 3,750
1½	N. York	"		210	"	4	"	" 10,000
2	Ohio	built	brig	200	"	9	"	" 4,000
2	Philadel.	"		200	"	12	"	" 4,000
2	Maine	"		200	"	10	"	" 4,000
2½	Nova Scotia	"		194	"	8	"	" 1,400
2	Maryland	"		120	"	6	"	" 1,800
2½	Lake	built	schooner,	304	"	4	"	" 8,000
2	Long Island	"		270	"	6	"	" 7,750
2	Connecticut	"		190	"	8	"	" 5,000
2	Maine	"		170	"	8	"	" 4,200
2	New York	"		200	"	15	"	" 4,000

NEW VESSELS.

A first-class Connecticut built bark, 700 tons register, for $34,000.
A first-class Massachusetts built schooner, 200 tons; $50 per ton complete.

THE SHIPPING INTEREST.

The shipping of the United States in 1840, according to official reports, amounted to 2,180,764; in 1845 it was only 2,417,002, an increase of only 236,238 tons, showing an average annual gain of only 47,247 tons. In 1850 the aggregate had increased to 3,535,454, showing a gain in five years of active employment of 1,118,452 ; an annual average of 133,690 tons. Here it will be seen that the annual gain during these five years was nearly equal to the total gain for the previous five years. This was owing to the increase of the carrying trade which had grown out of the war, the heavy exports to Great Britain during the season of crop failures, and the rush to the Pacific in consequence of the gold discovery. This was followed by the advantage given to our ships under the neutral flag during the Crimean war, which commenced actively in 1854, and terminated towards the close of 1856. At the latter date the tonnage of the United States stood at its highest point, the total being 5,212,001 tons, a gain for five years of 1,676,546, even on the large total of 1850, showing an annual average increase of 335,309 tons. In 1856 began the period of de-

pression, which has been one of the most disastrous the trade has ever known. The finest ships owned in the country were unprofitably employed at sea, or rotted idly at our wharves. Many shipowners, who had large investments in this floating property, were compelled to suspend, and some were involved in financial ruin. The ship-yards were deserted, and all along our seaboard, from the far Eastern line to the Gulf, ship-building was mostly suspended, and the grass grew rank and green over the mouldering chips. There was no remedy for this, in any description of legislation. The supply of ships, stimulated by the causes we have mentioned, had run ahead of the ordinary uses for this class of property, and the reaction was inevitable. The financial revulsion of 1857 was partly owing to this want of employment for our ships, and it also in turn contributed very much to complete the depression. The tonnage stricken off from the list the next year, part of it from previous losses not supplied by subsequent production, left the official total at 4,871,652; and during the five years which have since elapsed, the building in all the United States, instead of showing a gain of over one-and-a-half millions, as during the previous five years, had not, at latest official accounts, brought us up to the standard of 1855. The revival of the carrying trade in breadstuffs to Great Britain finds the list of available ships greatly reduced—the losses of the sea and the natural decay having more than counterbalanced the supply; and now the tide of prosperity has once more set in toward the flood. How long the profitable employment will continue, it is, of course, impossible to determine; but the prospect is certainly encouraging, and we may hope that the years of plenty will at least be as many as the years of famine.

NEW YORK SHIPPING.

The arrivals and clearances at New York for the quarter ending September 30th have been as follows:—

	Arrivals.			Clearances.		
	No.	Tons.	Crews.	No.	Tons.	Crews.
American	772	417,824	12,122	609	343,054½	10,513
Foreign	373	164,689	7,006	386	190,888½	7,392
Total	1,145	582,513	19,128	995	533,943	17,905
1859	1,013	502,355½	17,095	866	448,844½	15,644
1858	1,071	558,576½	18,088	733	384,422½	13,448
1857	978	515,453½	17,016	768	417,447½	14,631
1856	1,135	564,840½	18,641	889	466,226½	15,743
1855	836	394,300½	12,456	720	345,006½	11,625
1854	1,142	532,937½	17,173	837	387,382½	13,592
1853	1,219	505,454½	17,147	952	426,127½	14,990
1852	1,171	528,066½	17,843	873	395,230½	14,479
1851	1,177	489,827½	16,684	792	334,088½	12,487

COASTWISE TRADE.

	Arrivals.		Clearances.	
	No.	Tons.	No.	Tons.
1860	374	116,848	1,139	424,534
1859	427	125,229	1,240	456,390
1858	396	110,388	1,172	419,358
1857	436	118,796	1,198	384,184
1856	403	112,073	1,318	370,321
1855	511	143,342	1,182	365,901
1854	425	147,545	1,171	358,723
1853	408	112,053	1,285	338,810
1852	413	105,841	1,167	313,591
1851	398	102,631	1,258	283,564

NAVAL CHANGE.

Commodore PENDERGAST relieved Flag-officer JARVIS, and assumed command of the Gulf squadron on the 20th October, at Aspinwall. As the organization of the fleet has been altogether changed within a few weeks, we subjoin a correct exhibit of its strength under the new arrangement:—

	Tons.	Men.	Guns.		Tons.	Men.	Guns.
Flag-ship Cumberland.	1,726	300	24	Stm gunboat Wyandot.	420	100	4
Stm frigate Powhatan.	2,415	320	10	Sailing frigate Sabine.	1,726	500	50
Stm corvette Brooklyn.	2,000	300	20	Sail'g corvette St. Louis	700	240	20
Stm gunboat Mohawk..	450	100	4	Corvette Germantown.	930	300	22
Stm gunboat Crusader.	400	100	5				
Stm gunb't Pocahontas.	350	90	4	Total.....	11,126	2,350	163

COMMERCIAL REGULATIONS.

RIVER AND FREIGHTS.

The Cincinnati *Price Current* gives the rates of freights to New Orleans as follows:—

TO NEW ORLEANS.

Whisky.....per bbl.	$1 50	Flour.....	80
Oil.....	1 50	Pound freights.....per 100 lbs.	50
Pork.....	1 25		

TO PITTSBURG.

Whisky and oil.....per bbl.	40	Molasses.....	75
Flour.....	25	Pound freights.....per 100 lbs.	15
Pork.....	45		

TO ST. LOUIS.

Whisky and oil.....per bbl.	65	Pound freights.....per 100 lbs.	25
Ale.....	50		

No change in railroad freights.

FROM CINCINNATI.

	1st Class.	2d Class.	3d Class.	4th Class.	Flour.
Cincinnati to New York, rail.....	$1 35	$1 05	85	55	$1 10
" " rail and water....	1 27	97	80	50	1 00
Boston, rail.....	1 45	1 13	90	60	1 20
" rail and water.....	1 37	1 05	85	55	1 10
Baltimore, rail.....	1 10	85	76	45	90
" rail and water.....	1 02	77	65	40	80
Philadelphia, rail.....	1 20	95	80	50	1 00
" rail and water.....	1 12	87	75	45	90
Buffalo, rail.....	66	55	55	40	55
" rail and water.....	58	47	40	35	45
Dunkirk, rail.....	66	55	45	40	55
" rail and water.....	58	47	40	35	45
Albany, Troy, and Schenectady, rail.....	1 35	1 08	88	60	1 00
" " rail and water	1 23	98	78	55	90
Detroit, rail.....	50	40	30	20	40
Cleveland, rail.....	40	35	25	20	40
Toledo, rail.....	40	35	25	20	40
Sandusky, rail.....	40	35	25	20	40
Chicago, rail.....	75	60	50	40	..
Milwaukee, rail.....	75	60	50	40	..

FROM INDIANAPOLIS.

	1st Class.	2d Class.	3d Class.	4th Class.	Flour.
Boston, rail	$1 56	$1 18	98	60	$1 20
" rail and water	1 42	1 10	88	55	1 10
New York, rail	1 40	1 10	88	55	1 10
" rail and water	1 32	1 02	83	50	1 00
Philadelphia	1 25	1 00	83	50	1 00
Baltimore	1 15	90	73	45	90
Buffalo, rail	66	55	45	30	60
" rail and water	58	47	40	25	50
Dunkirk, rail and water	58	47	40	25	50
Pittsburg	58	47	40	25	50
Bellair	45	40	35	23	45
Bridgeport	49	44	39	27	53
Cleveland	40	35	25	20	40
Sandusky	40	35	25	20	40
Columbus	40	33	23	15	30

Grain same as fourth class.

FREIGHT RATES FROM LOUISVILLE.

	1st Class.	2d Class.	3d Class.	4th Class.	Flour.
New York, rail	$1 45	$1 15	95	60	$1 20
" rail and water	1 40	1 10	90	55	1 10
Boston, rail	1 55	1 25	1 00	65	1 30
" rail and water	1 50	1 20	95	60	1 20
Philadelphia, rail	1 30	1 05	90	55	1 10
Baltimore, rail	1 20	95	80	50	1 00
Buffalo, rail	75	65	55	40	75
" rail and water	70	60	50	33	55
Detroit	60	50	40	25	50
Milwaukee	95	75	65	55	66
Portland	1 55	1 25	1 07	75	1 20
Quebec	1 65	1 35	1 10	75	1 40

IMITATION MERINO SHIRTS.

TREASURY DEPARTMENT, September 4, 1860.

SIR:—I have examined the papers in the case presented in your report under date of the 13th ultimo, and the sample submitted, on the appeal of JAMES M. BEEBE & Co. from your decision assessing a duty of 24 per cent on an article imported by them and described as "unbleached cotton shirts, merino finish," the importers claiming entry at a duty of 15 per cent. The article, it seems, is composed wholly of cotton, and by raising a nap and some further application or process, a fine wooly surface and a close imitation of merino are produced. The only question in contest between yourself and the importers, is one of fact —whether the fabric is bleached or unbleached. If the former, the collector's decision was correct, and the article is dutiable at 24 per cent under the classification in schedule C of "all manufactures composed wholly of cotton, which are bleached, printed, painted, or dyed." The merchandise in question having been pronounced after a careful examination by official experts at several of our principal ports as "bleached," the Department assumes the article to be of that character, and is of the opinion that the duty was properly assessed by you at the rate of 24 per cent under the classification in schedule C, to which you have referred it. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

JAMES S. WHITNEY, Esq., Collector, &c., Boston, Mass.

WOOLEN HATS.

TREASURY DEPARTMENT, September 1, 1860.

SIR:—I acknowledge the receipt of your report on the appeal of Mr. ALFRED PLUNKET from your decision assessing duty at the rate of 24 per cent under schedule C of the tariff of 1857, on certain "woolen hats" imported by him, as "manufactures of wool not otherwise provided for." The appellant claims entry of the articles in question at the rate of 15 per cent under the classification in schedule E of "hats of wool." The merchandise in this case is manufactured, substantially, of woolen cloth. The term "hats of wool" in the tariffs of 1846 and 1857 has been understood to apply only to hats, the bodies of which are composed of wool that has undergone no process of manufacture except felting or fulling, and such seems to have been the commercial designation at the date of the passage of the tariff act of 1846. In the manufacture of the article under consideration, the wool undergoes two preliminary processes at least:—first, it is converted into yarn, and then into cloth, and in this latter form used in the manufacture of the hats. The Department perceives no reason for abandoning the practice heretofore pursued, and is of the opinion that the duty of 24 per cent is properly assessed, either under the classification in schedule C of "hats and bonnets for men, women, and children, composed of straw, satin straw, chip, grass, palmleaf, willow, or any other vegetable substance, or of hair, whalebone, or other material not otherwise provided for," or under the classifications in the same schedule of "articles worn by men, women, or children, of whatever material composed, made up, or made wholly or in part by hand," or "manufactures of wool or of which wool shall be the component material of chief value, not otherwise provided for." Your decision assessing a duty of 24 per cent is affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, &c., New York.

LANDSCAPE PLATES.

TREASURY DEPARTMENT, August 20, 1860.

SIR:—The Department approves of the assessment stated in your report of the 30th June last, of a duty of 24 per cent on certain articles described as "landscape plates," imported by Mr. JOHN B. BEHRMANN, who has appealed from your decision to this Department. The merchandise in question is described as glass upon which a picture of a landscape is painted, and, as such, it is clearly embraced in schedule C, to which you have referred it, either under the classification of "paintings on glass" or that of "glass, colored, stained, or painted," and liable to the duty of 24 per cent which you have exacted on the entry. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, &c., New York.

NEW TARIFF OF RATES BETWEEN CHICAGO AND SOUTHERN CITIES.

The following tariff between Chicago and Southern cities has already gone into effect:—

Between Chicago and—	1st class.	2d class.	3d class.	4th class.	Flour per bbl. by car load.	Pork and beef per bbl. by car load.	Whisky per bbl. car load.
Memphis, Tenn....	85	70	55	45	75	1 20	1 38
Atlanta, Ga.....	1 30	1 37	1 27	1 05	1 73	3 18	3 78
Macon, Ga.....	2 08	1 57	1 47	1 21	1 93	3 68	4 38
Augusta, Ga.....	2 15	1 62	1 52	1 25	1 98	3 80	4 58
Columbus, Ga.....	2 16	1 69	1 59	1 35	2 08	3 93	4 78
Montgomery, Ala..	2 20	1 73	1 63	1 35	2 13	3 98	4 78
Savannah, Ga.....	2 50	1 87	1 77	1 45	2 23	4 43	5 28
Charleston, S. C....	2 50	1 87	1 77	1 45	2 23	4 43	5 28

The tariff is to continue in force until changed, and is subject to rules and regulations of local tariff of Illinois Central Railroad.

POSTAL DEPARTMENT.

POST-OFFICE OF THE SANDWICH ISLANDS.

REPORT OF THE POSTMASTER GENERAL.

POST-OFFICE, HONOLULU,
April 10th, 1860.

SIR :—I have the honor to submit to your Highness the following report of the Post-office Department :—

During the past two years the business of the office has very much increased, but as the labor is now thoroughly systematized, it is performed with more regularity, dispatch, and ease than formerly.

The provisions of sections 409 and 410 of Civil Code, relating to dead letters and the procuring an official stamp, have been complied with.

The laws regulating postage have become very generally understood throughout the islands, and though a considerable number of unpaid letters have accumulated in this office during the past seven months, a large portion of them have been written by foreigners.

In order to insure the attention of postmasters to the selling of stamps, and to secure a proper attention to mails, I found it necessary to allow some remuneration, and have therefore granted them the privilege of mailing their own letters free. There are now twenty-seven postmasters connected with the department.

All our mail bags have been furnished with locks, and we have endeavored to secure not only safety, but promptness and dispatch, in the transmission of mails on all our mail routes.

Within the past quarter I have concluded arrangements with D. C. WATERMAN, Esq., removing our mail agency from MORGAN, STONE & Co., of San Francisco, to the firm of D. C. WATERMAN & Co. of this place, by which change the settlement of our quarterly accounts with the United States government is rendered much more convenient, and a saving is made in expense to the office.

A small increase in the appropriation for mail carriers on the island of Hawaii is necessary, in order to render the service equal to the demands of the people.

By comparing the accompanying table, showing the number of letters received and forwarded through this office during the past three months, with the report of the office for 1858, it appears that the charge of two cents per half ounce on letters has not had the effect to check correspondence between the islands, and it will be noticed that the receipts from inter-island postage covers two-thirds the expense of mail carriage.

My predecessor having furnished you with an account of the business of the office for the nine months previous to January 1st, 1859, my report of the finances of the office is confined to the fifteen months succeeding that date.

As a record of the letters passing through this office had not been kept previous to January 1st of the present year, I am unable to make a correct statement of the number ; but during the past three months ending March 31st, 1860, a record has been kept, the result of which is as follows :—

Number of letters addressed to foreigners received.....	7,608	
" " " " forwarded.....	7,105	
		14,713
" " " natives received.....	2,593	
" " " " forwarded.....	1,635	
		4,228
Total number for three months.....		18,941

Amount of cash on hand Jan. 1, 1859.....	$1,287 97	
" received from foreign mail from Jan. 1, 1859, to March 31, 1860.....	9,859 90	
Amount received from inter-island postage from Aug. 1, 1859 to March 31, 1860.....	665 75	
Amount drawn from Hawaiian Treasury from Jan. 1, 1859, to March 31, 1860.....	5,605 51	
		$17,399 13
Amount paid mail carriers from Jan. 1, '59, to March 31, '60	1,448 25	
Amount paid salary of postmaster general from Jan. 1, 1859, to March 31, 1860.....	2,916 67	
Amount paid U. S. government postage collected and mail agency, from Jan. 1, 1859, to March 31, 1860.....	4,953 28	
Amount paid sundry expenses of office, clerk hire, office rent, etc., from Jan. 1, 1859. to March 31, 1860.....	4,404 66	
Amount cash paid into Hawaiian Treasury,.....	3,676 82	
		$17,399 13

I have the honor to be, Sir,
Your most obedient servant,

A. K. CLARK.

H. R. H. Prince L. KAMEHAMEHA, Minister of the Interior, &c., &c., &c.

THE BRITISH POST-OFFICE.

The following table shows the number of letters delivered in the United Kingdon during the last year, with the rate of increase, and the proportion of letters to population :—

	Number of letters in 1859.	Increase per cent on number in 1858.	Proportion of letters to population.
England.....	446,000,000	4½	22 to each person.
Ireland.....	47,000,000	7	7 " "
Scotland.....	52,000,000	2	16 " "
United Kingdom.....	545,000,000	4½	18 " "

ENGLISH POST-OFFICE PACKET SERVICE, 1858-59.

CLASSIFIED ABSTRACT OF PARLIAMENTARY VOTES AS FAR AS RELATES TO THE AMERICAN BRANCH OF THE SERVICE.

	Company.	1859.	1858.
America, North and South, Liverpool and Halifax, and Boston, Liverpool, and New York, and New York and Nassau	Cunard	£176,340	£172,840
Halifax, Bermuda, and St. Thomas', and Halifax and St. John's, Newfoundland.....	Cunard	14,700	14,700
Southampton and West Indies.....	Royal Mail	238,500	244,000
Southampton and Brazils and Buenos Ayres	Royal mail	30,000	30,000
Panama, Callao, and Valparaiso.....	Pacific	25,000	25,000
		£484,540	£486,540

JOURNAL OF INSURANCE.

ALABAMA INSURANCE LAW.

AN ACT TO REGULATE THE AGENCIES OF INSURANCE COMPANIES NOT INCORPORATED BY THE STATE OF ALABAMA.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the State of Alabama in General Assembly convened,* That it shall not be lawful for any agent or agents of any fire, river, or marine insurance company, incorporated by any other State than the State of Alabama, directly or indirectly to take any risks or transact any business of insurance in this State without first procuring a certificate of authority from the Controller of this State; and before obtaining such certificate such agent or agents shall furnish the said Controller a statement under oath of the president or secretary of the company for which he or they may act, which statement shall show—1st, the name and locality of the company; 2d, the amount of the capital stock; 3d, the amount of its capital stock paid in; 4th, the act of incorporation of the company; which statement shall be filed in the office of the Controller, with a written instrument under the seal of the company authorizing such agent to acknowledge service of process for and in behalf of such company, consenting that service of process upon such agent shall be taken and held as if service upon the company, according to the laws of this State, or any other State, waiving all claims of error by reason of such service. And no insurance company or agent of any insurance company incorporated by any other State shall transact any business of insurance unless such company is possessed of at least one hundred thousand dollars of actual capital invested in stock of at least par value, or in bond or mortgage of real estate worth double the amount for which the same is mortgaged; and upon the aforesaid statement and written instrument being deposited with the Controller, and furnishing satisfactory evidence as aforesaid, it shall be the duty of the Controller to issue a certificate thereof with the authority to transact business of insurance to the agent or agents applying for the same.

SEC. 2. And be it further enacted, That it shall be unlawful for any agent or agents of any fire, river, or marine insurance company incorporated by any foreign government other than a State of this Union, to transact any business of insurance in this State without first procuring a certificate of authority from the Controller of this State, such agent or agents having first filed in the office of said Controller a statement setting forth the charter or act of incorporation of the company for which he or they may act, and the matters required by the first section of this act, and the written authority and consent therein mentioned for the acknowledgment by such agent or agents of service of process to be binding on such company, and the said agent or agents shall also deposit with the Controller the stock or certificate thereof of one or more of the States of the United States, the same to be satisfactory to the Controller, to the amount of one hundred thousand dollars, which shall be held by him and his successors in office exclusively as security for the payment of any losses for which the company may become liable in the course of its business, the dividends or interest on said stock as they may become due to be received by the agent or agents of the company, and depositing said stock or certificate, and the said agent or agents of such company filing the statement and depositing the stock or certificate aforesaid shall be entitled to a certificate of authority in like manner as is provided for in the first section of this act.

SEC. 3. And be it further enacted, That it shall be the duty of the agent or agents in either and both of the foregoing sections mentioned, before taking any risk or transacting any business of insurance in this State, to file in the office

of the Judge of Probate of the county in which he or they desire to establish an agency for any insurance company as aforesaid, a copy of the statement and written instrument required to be filed with the Controller as aforesaid, together with the certificate of said Controller, which shall be carefully preserved in said office for public inspection.

SEC. 4. And be it further enacted, That the statement and evidence required by this act shall be rendered annually in the month of July of each year, the first statement to be made in the month of July next after the passage of this act, and the Controller on being satisfied that the capital of the company filing such statement remains secure as at first, shall furnish a renewal of certificate, as aforesaid, and the agent or agents obtaining such renewal of certificate shall file the same, together with a copy of the statement on which it was obtained, or renewed, in the office of the Judge of Probate of the county in which such agency is established, to be carefully preserved in said office for public inspection.

SEC. 5. And be it further enacted, That copies of all papers required by this act to be deposited in the office of the Controller, certified under the hand of such Controller to be true and correct copies of such papers, shall be received as evidence in all courts of this State in the same manner and have the same force and effect as the original would if produced.

SEC. 6. And be it further enacted, That the agents of all insurance companies not incorporated by the State of Alabama, doing fire, river, or marine insurance in any county of this State, shall on or before the first day of August in each and every year deposit with the assessor of the county in which the agency of such company is established, a statement, verified by the oath of the agent of such company, specifying the gross amount (after deducting all return premiums) of premiums received for insurance by said company at the said agency during the preceding year, or such fractional part of the year, that such company may have been doing business in the city or county after the passage of this act.

SEC. 7. And be it further enacted, That such gross amount of premiums so received as aforesaid shall be subject in every county in which such agency is established, to a tax of two per centum, one half of which shall be for the use of the county and the other half for the State, which tax shall be paid by such agent or agents to the respective collectors of taxes within the time required by law for the payment of general taxes, and which tax shall be in lieu of the tax imposed by paragraph twenty-four of section three hundred and ninety one of the code.

SEC. 8. And be it further enacted, That it shall be the duty of such agent or agents as beforementioned, before taking any risk or transacting any business of insurance in the city or county of Mobile, to pay the treasurer of the "Fire Department Association of Mobile" the sum of two hundred dollars, for the benefit of said association. To the trustees of the medical college at Mobile the sum of two hundred dollars, such payment to be made from year to year so long as such agency is continued in the city or county of Mobile, and any such agent or agents, taking any risk or transacting any business of insurance in any other incorporated city or town in this State where fire companies now are, or that may be hereafter organized, shall pay to the corporate authorities of such city or town, for the benefit of such fire companies, the sum of two hundred dollars, each payment to be made from year to year so long as such agency or agencies, is or are continued in such city or county.

SEC. 9. And be it further enacted, That for every such statement required to be filed by this act with the Controllor and Judge of Probate, said Controller and Judge of Probate shall be entitled to a fee of five dollars to be paid by the agent, or agents, filing such statement.

SEC. 10. And be it further enacted, That any person violating the provisions of this act shall be liable to indictment, and on conviction shall be fined not less than one hundred dollars nor more than five hundred dollars, and may be im-

prisoned in the county jail not less than one month nor more than twelve months, one or both at the discretion of the jury trying the same.

SEC. 11. And be it further enacted, That no such company as is named in the foregoing sections, shall in any manner, or on any pretext, deal in, pay out, directly or indirectly, the notes or bills of any bank not doing business under a charter from the State of Alabama, or under its free banking law, and any officer or agent of such company violating the provisions of this act, is guilty of a misdemeanor, and on conviction shall be fined not less than five hundred dollars for each offence, and the judges of the circuit courts must give this act specially in charge of the grand juries.

SEC. 12. And be it further enacted, That this act shall also apply to life and trust insurance companies, not incorporated by the laws of this State, whether said companies are or are not organized upon the mutual plan.

SEC. 13. And be it further enacted, That the provisions of this act shall apply in all cases where the risk is taken or any insurance business is transacted in this State by the agent or agents of any of the insurance companies mentioned in this act, whether the policies are signed by the officers of said companies in or out of this State.

SEC. 14. And be it further enacted, That all laws and parts of laws conflicting with the provisions of this act be and the same are hereby repealed.

Approved February 24, 1860.

INSURANCE SCRIP DIVIDENDS.

Dividends of scrip of the marine insurance companies of New York. Compiled from official sources, by WILLIAM C. GILMAN & SON, 18 Merchants' Exchange, September, 1860:—

Name of company.	Rate per cent. 1859.	1860.	Name of company.	Rate per cent. 1859.	1860.
Atlantic	40	35	Pacific	43	30
Commercial	40	15	Union	45	36
Great Western	20	10			
Mercantile	20	11	Total scrip dividends.	264	169
New York	35	12	Average	33	21¼
Orient	21	20			

In 1859 the Columbian Company declared 12, and the Sun Company 30 per cent. Their statements for 1860 have not yet been made. The Neptune and the Washington, new companies, have not yet issued scrip.

HUMORS OF HEALTH INSURANCE.

A thin cadaverous looking German about fifty years of age entered the office of a health insurance company in Indiana a few days ago, says the Albany *Daily Courier*, and inquired:—

"Ish the man in vot insures the people's helts?"

The agent politely answered; "I attend to that business, sir."

"Vell, I vants mine helts insured; vot you charge?"

"Different prices," answered the agent, "from three to ten dollars a week in a case of sickness."

"Vell," says Mynheer, "I vants ten dollars vort."

The agent then inquired the state of his health.

"Vell I ish sick all te time. I'se shust out te ped two or tree hours a tay, and te doctor says he can't do nothing more dat ish goot for me."

"If that is the state of your health," returned the agent, "we can't insure it. We only insure persons in good health."

At this Mynheer bristled up in great anger.

"You must tink I'm a fool. Vot you tink I come pay you ten dollars for insure my helt, ven I vas vell."

MARINE INSURANCE SCRIP.

The following are the market values of insurance scrip, all bearing 6 per cent interest:—

			Off'rd.	Ask'd.
Great Western	1857	$325,000	75	79
"	1858	235,000	70	73
"	1859	320,000	62	68½
"	1860	190,000	58	62
Columbian	1858	65,000	60	68
"	1859	65,000	52	57½
Mercantile	1858	90,000	50	60
"	1859	126,000	46	52
"	1860	80,000	44	47
Orient Mutual	1858	.....	46½	50
"	1859	.....	44	47
"	1860	.....	41	45
Neptune	....	.....	..	..
Atlantic Mutual	1859	1,200,000	100½	103
"	1860	1,400,000	91½	93
Sun Mutual	1855	100,000	102	..
"	1856	265,000	96½	..
"	1857	152,000	90	..
"	1858	225,000	85	..
"	1859	270,000	78	..
Union Mutual	1852	50,000	100	..
"	1853	126,690	96½	..
"	1854	160,000	90	..
"	1856	107,650	87	..
"	1857	92,270	84	..
"	1858	86,580	81	..
"	1859	204,880	78	..
"	1860	180,000	74½	..
Pacific Mutual	1858	150,000	100	..
"	1859	225,000	90	..
"	1860	220,000	80	..
Commercial Mutual	1856	59,000	90	..
"	1857	65,000	80	..
"	1858	110,000	70	..
"	1859	225,000	60	..
New York Mutual	1858	250,000	77	..
"	1859	250,000	67	..
"	1860	80,000	54	..

For Great Western shares the quotations are 135 a 137½; Columbian, 120 a 122; Mercantile, 110 a 112; Orient, 85 a 90.

JOURNAL OF MINING, MANUFACTURES, AND ART.

THE PENNSYLVANIA ROCK OIL.

A letter to the *Evening Post* contains the following interesting facts in relation to rock oil:—

Knowing that some of your readers have been interested in the brief communications that have been furnished in relation to the oil discoveries in Pennsylvania, I venture again to send you some of the latest reports from the oil districts.

Messrs. A. & S. A. BENNETT, the oil forwarding agents at Union Mills, furnish the following statement of the amount of oil shipped by them in the months of July and August:—

July, 1860.....barrels	1,834
August, 1860.....	2,152
Total	3,986

Nearly all of which was received from Titusville and forwarded to New York, while nearly as much more found its way, via Oil Creek and the Alleghany, to Pittsburg.

By private letter received last week I learn that the monster well at Tidioute, on the Alleghany, did not continue long to flow over the top, but that, after throwing over some two hundred barrels, the gas was sufficiently exhausted to allow the oil to rest in the pipe. A pump has since been inserted, and so far discharges but about thirty barrels per day—much less than was anticipated from its antecedents. The same letter says that the Williams well, at Titusville, is so far the banner well, constantly yielding a daily average of about one hundred barrels of nearly pure oil.

The famous Crossley well—one of the first opened, and which last March yielded from sixty to seventy barrels per day—has now dwindled down to six or seven; but, as before stated, the owner is confident that this apparent failure is in consequence of the filling in of his pump, and that as soon as he removes it and rims out the well, as is customary and necessary in salt wells, he will again obtain an abundant flow of oil.

Out of a hundred and sixty-seven wells on the creek above Titusville, only thirty-four are yet pumping oil, and many of the oil-seekers are just now in a state of very anxious suspense. Many of them, encouraged by the fact that some of the earliest diggers found oil at depths varying from seventy-five to one hundred and fifty feet, went to work with very limited means, and having gone as deep as their funds will allow, with neither oil nor money to grease their wheels, are now obliged to suspend operations, and with heavy hearts cast about again for the wherewithal to go a little deeper. The fact stares them in the face that some individuals have found good veins of oil over five hundred feet deep, and, of course, they must find it too if they but perserve. Some have found the smell of gas, which surely indicates that there is oil not far away, while others have seen a few drops of the real article floating upon the water which they are sure to find in abundance. But the drill must stop for the want of money, and many a poor driller will probably soon sink his hopes with his spirits in the bottom of his well, and turn away with the disappointment that gold or fortune-hunters often feel to some employment which, if not so promising to the imagination, is more sure of yielding a livelihood. There is a great disposition among the oil-seekers to crowd their wells together, and the most extravagant prices are often paid for leases in the neighborhood of other promising or producing wells. One sanguine individual offered for a lot of seventy-five feet front three-fourths of the oil he might obtain, in barrels, for the privilege of sinking and working a well. People are just beginning to find out that there may be disappointment

here as well as in every other worldly enterprise, and that "they who make haste to be rich fall into many a snare." Should any of your readers desire to enter upon this search for oil, let me advise that they take with them plenty of money, and, if gifted with ordinary prudence, they can make as wise and paying investments now as at any time since the excitement commenced. And if any one wishes to escape from the noise of politics, and to retire for a while where the people have oil for breakfast, dinner, and supper, where they talk of oil by day and dream of it by night, let him go to Oil Creek and spend a week, and he will be surprised that one can get so far out of the world in so short a time.

GALVANIZING IRON.

For the preservation of iron, various methods have been devised, namely, those which protect iron mechanically, by covering it with a coating not acted on by, and impervious to, the deteriorating principle, and those which protect iron chemically, by producing a change in its electric or electropolar condition with respect to the corroding agents. Any metal electro-positive to iron will answer for such a protector, but zinc is the only one known that can be practically used in the electro-chemical preservation of iron. . The process through which it passes is known by the name of "galvanizing;" and the *modus operandi*, as shown at one of the largest establishments in the United States, is as follows:—

Two kinds of iron are used, viz.:—Pig iron, which is puddled and then rolled into bars and sheets for the use of stove-making, &c., and blooms, (technically called,) for galvanizing These blooms come in square blocks about 4 inches wide by 12 inches long, of solid charcoal iron. These blocks are heated and rolled into bars (by a steam engine of 125 horse power) of about 2¼ inches wide. They are then cut into lengths by a powerful cutting machine, each length being the width of the sheet intended to be rolled, the ordinary thickness being about five-eighths of an inch; this, however, varies. These blocks are then passed over to the other side of the mill, and are then ready for rolling into sheets.

The first process is placing them in an oven, heating them almost to a white heat. Two, three, or four blocks, according to the thickness required, are then taken to the first rolling machine, operated on by two men; the first passing the iron through the rollers, which is caught by means of tongs by the other, and so on through the whole. The first man then, by means of two levers, screws the rollers a little tighter, and the iron passes out as before; and so it is passed backwards and forwards until from 2¼ inches wide it becomes nearly 2¼ feet. By this time it is getting cool, and is again sent to the oven. When it is sufficiently hot, it is handed over (as before) to another set of rollers. The same process is gone through, with this difference, that instead of passing each separately, the two, three, or four plates are placed one over the other and rolled together. Sometimes one rolling is sufficient, but at others they have to be again heated and rolled. After this process they are ready for the cutting machine to take off the jagged edges, and make them of equal lengths; from thence the sheets are taken to the galvanizing works. When they arrive, they are first treated to a bath of sulphuric acid; after that they are thoroughly washed in clean water, rubbed dry, and examined. They are then immersed in a bath of nitric acid, from which they pass, by means of a car and rails, into the oven, where they are dried perfectly, and taken to the zinc bath. Here they get a coating of zinc a trifle thicker than the tin on tin plates, the zinc being heated to a state of solution. After being taken out of this bath and cooled, they are rubbed with cloths, for the purpose of removing the dirt, and again thoroughly examined, to see that the zinc coating is perfect. The iron is then packed in bundles and marked, fit for use, and will stand salt water or any kind of weather without rust.

The establishment where the above operations are carried on, have also machinery for galvanizing telegraph wire, of which they can turn out twenty miles

a day; and we believe they are the only firm in this country who have the facilities of doing this kind of work to any extent.

The iron wire having been subject to the previous processes, is passed through the zinc bath as it comes from the reel, and ascends to the upper part of the building, where it is wound on another reel moved by steam power.

COTTON MANUFACTURE IN SCOTLAND.

The cotton manufacture in Scotland is only of comparatively recent introduction, the first steam engine for a cotton factory having been constructed so late as 1792. Its principal seats are in the countries of Lanark and Renfrew. Some of the fabrics made at Glasgow and Paisley are of almost unrivaled beauty and fineness The number of cotton mills in 1837, was 177; all those of considerable size, with only a few exceptions, being situated in Glasgow, or within 20 or 30 miles of it, and all of them without exception being connected with Glasgow houses, or the Glasgow trade. at least so far as the raw material was concerned. In 1850 the number of cotton factories was 168, with 1,683,093 spindles and 23,564 power looms, employing 36,325 hands. In 1857 there were 152 cotton factories, with 2,041,129 spindles and 21,624 power-looms, driven by 9,971 horse power, of which 7,641 was steam, and employing 34,698 hands, of whom 7,609 were males and 27,089 females. The entire cotton manufacture of Scotland may be said to center in, or be dependent on, Glasgow.

The above progress, when explained in the language of practical life, represents an increase of consumption in the above period at the rate of 70,000 bales a year, or 1.350 bales per week.

In the next place, let us have our attention directed to the amount of increase which has been going on in our spindles. In the year 1850, according to a Parliamentary return, there were in Great Britain (exclusive of Ireland) 20,858,662 spindles employed upon cotton; and having reference to the annual consumption at that period, of 629,798,400 pounds, it amounts to 30 pounds per spindle. Therefore if we apply this fact to the cotton consumption of last year, viz.:— 937,800,800 pounds, we shall find that the manufacturing power we now possess is that of 32,460,026 spindles, showing an increase in the ten years of 11.601,964, or an average rate of progress of 20,718 spindles per week, and requiring a weekly supply of 1,350 bales of cotton. Meanwhile, that is to say, during the ten years in question, the principal increase in growth has been in the United States; and, large as it may appear, it has barely kept pace with the increase of demand, and the supplies held in the market have been gradually diminishing, and often reduced to a very scanty amount.

The machinists of this country have, perhaps, never before found themselves so fully employed; and, according to information derived from them, there is now going on a greatly accelerated increase in the erection of mills and in the extent of spinning machinery in course of preparation, not only in Great Britain, but also in all parts of Europe, as well as in the United States.

The new machinery now constructing for British account has been put down at 45,000 spindles per week, which is more than a two-fold rate of increase as compared with the period before referred to. These will require to be supplied with their 30 pounds of cotton per annum for each spindle; and at no distant day the increase of consumption for the new spindles alone will amount to not less than 160,000 bales a year, as against a rate of 70,000 bales in the last

ten years; or a future supply of 3,000 bales per week, as against the former rate of 1,350 bales.

Let it also be borne in mind that the cotton manufacture of Great Britain constitutes only one-half of the consumption under our immediate notice, while the other half is carried on in the various manufacturing districts of Europe and in the United States. Now, should the like rapidity of progress in manufacture be going on in these other countries, it must be obvious that an extension of growth will very soon be required of more than 300,000 bales a year.

FLAX COTTON.

It has long been known that the stalk of the flax plant is capable of conversion into cotton, and that when thus prepared it possesses many important advantages over the staple now so extensively cultivated in this country, and so universally used by the population of the world. Flax may be spun, woven, and manufactured into every variety of goods that are made of common cotton. It may be used in many kinds of cloth, combined with wool, where cotton is excluded, and in all cases forms a superior substitute; it also holds color better than cotton or even wool. Flax is very easily cultivated, growing with vigor wherever corn and wheat flourish; and nothing can be plainer than the fact that, if there were any economical process whereby the flax stalks could be easily changed into cotton, its cultivation would be rendered universal—it would become one of the great staples of the world. CLAUSSEN'S process, to this end, at one time attracted great attention; he could not, however, produce the prepared flax so cheaply, nor of so good a quality, as the ordinary cotton of commerce, and hence his discovery was of little avail, and has about passed into oblivion. The KNOWLES process, lately so prominent, consists in cutting the flax stalks, whether rotted or not, into proper lengths for staple, boiling it in a weak alkaline solution of soda or potash, until the shives separate on rubbing. It is then bleached by chlorine, adding at the same time borax, salt, saltpeter, Glauber salts, Epsom salts, sal ammoniac, or other similar salts. It is then washed with water and dried.

RHODE ISLAND COAL.

A paper was read on this subject by CHARLES H. HITCHCOCK, of Amherst, Massachusetts. He attempted to show that the coal basin of Rhode Island belonged to the oldest of the coal periods. Professor AGASSIZ said that when we saw the deposits of peat in Massachusetts, and of wood in the swamps of the South, and how different they were, and that they might both one day be turned into coal, we should not conclude that two basins of coal in different latitudes were of different ages because they differed in lithological character or in fossils; we saw how different the animals growing in these swamps and bogs were now. He was prepared to show that deposits formed in or near periods might not contain a single identical fossil, and that, therefore, our present criterion of synchronism from identical fossils, lack one element of certainty. Nor was it necessary that deposits should be very thick to represent a long period. Since the creation of man, there had been but sixty or seventy feet of coal reef formed in the Floridas, and the carboniferous period might contain innumerable epochs. He thought that as yet our facts were not sufficiently numerous to authorize us to draw any very definite conclusions.

MANCHESTER OPERATIVES.

And to tell you the truth, says a writer in *Blackwood*, I like the working classes of Manchester, as far as they came under my notice. They are not courteous, but they are obliging. They will not touch their hats or "Sir" you; but if you want a direction, they will instruct you definitely. They appear to me very honest. I know the cab fares, and no cabman tried to overcharge me. Perhaps we are apt to lay too much stress on mere civility. It certainly greases the wheels of life, and prevents their creaking, but they can go without it. And there appears to me a deep quiet well of humor in the Lancastrian or Mancunian nature which is infinitely amusing. One day, as I heard on good authority, a worthy incumbent in the country was roused from his sleep at five in the morning by loud talking at the side of a fish-pond in his grounds. His reverence put his night-capped head out of window, and saw three men standing by the side of his pond. "What are you doing there?" said he. "Fishing," said they. "But you are trespassing on my land; you must go away." "Go to bed again," was the rejoinder; "*your* Master was not in the habit of sending away poor fishermen." The good clergyman could, of course, only laugh and turn in again. The Exhibition, too, has exhibited some specimens of this humor. Two women from the mills stopped before the picture of the death of King Lear. "What is that, Mary?" said one. "There's life in the old dog yet," said the other. The people of Manchester itself looked, generally speaking, rather jolly and well-fed than otherwise, and I heard that the recruiting sergeant was able to pick up there some uncommonly fine lads willing to serve her Majesty.

THE NEEDLE.

Professor ALEXANDER D. BACHE, at the recent scientific meeting at Newport, read a most interesting paper upon magnetic phenomena, from which we take the following:—

The regular daily movement of a magnetic needle is very small. The north end of a needle fourteen inches in length moves, in summer, about the one-hundredth of an inch eastward in the morning, and about the same distance westward in the afternoon, making the whole movement about the fiftieth of an inch. In winter the movement is only half as great. To trace the laws of motions so very small is evidently a delicate task, and it is made more difficult from the fact that these laws are complicated, and frequently marked by disturbances. At a previous meeting he had shown how the auroral disturbances were eliminated, and how the examination confirmed R. WOLFF'S curious discovery of a ten or eleven year's period corresponding with the solar spots. He would now remark that here was a new point in his discussion, compared with the European physicists, namely, the use of PIERCE'S criterion, or mathematical rule for determining when the observation is to be considered as that of a disturbance, and when that of a regular or normal position. Without this criterion, the observations from 1840 to 1845 were insufficient to rest upon for accurate results, but with it they were sufficient. He showed by diagrams how the amount of daily move ment varied from month to month, and how the law of this variation obtained from Philadelphia observations compared with that obtained at Toronto, at St. Helena, and at Hobart Town. The greatest movement is about ten days after the solstice, and the least about ten days after the winter solstice—the passage through the average movement is about ten days after the equinoxes. The needle is, unless disturbed, in its mean position about 10h. 26m. in the morning, and at its furthest westerly declination at 1h. 16m. P. M. These times vary but little in the course of the year, and would be the best times to take observations. The daily changes for every day in the year were illustrated by a diagram representing a curved surface, the breadth of the sheet representing the hours of the day, the length of it the days in the year, and the height or depression the declination of the needle. The secular changes, or change from year to year, is very difficult to eliminate, from certain physical reasons; but after eliminating it as well as it could be done, the resulting annual change agrees well with that

obtained by Prof. LLOYD from the Dublin observations, and also with the Toronto observations. From June to October the north end of the needle is east of its mean position, and from October to June west. The amount of this range is thought to increase or diminish with the amount of secular change.

THE "LAST" MANUFACTORY AT RICHMOND.

The manufactory of lasts and boot-trees has lately been put in operation in Richmond, Virginia, being the first of the kind ever established there. The proprietors, WORTHAM & Co., get their persimmon logs from the Chickahominy Swamp, and some of them are of such a size as to yield 500 pairs of lasts. The Richmond *Enquirer* thus describes the manufactory:—"Outside the door of a frame building you will find two men with a cross-cut saw cutting great persimmon logs into lengths of from 12 to 16 inches; these lengths are transferred to the frame building, where they are split into chunks, and these chunks being hewn with an ax into a very rough outline of a last, are put into a drying kiln, out of which they come in ten days, hardened and ready for the lathe. The lathe is worked by steam, and consists of a frame about three feet high, two feet wide, and five or six feet long, and so constructed that one of the dried chunks, being put near one end of a horizontal axle, is shaped by a knife into a form exactly corresponding with a pattern last placed on the other end of the same axle. The chunk, thus shaped, is removed from the lathe; and the heel and the toe being trimmed, it is then filed, polished off, and the last is complete."

SMOKE FROM GAS-LIGHTS.

It is pretty generally imagined that the smoking of ceilings is occasioned by impurity in the gas, whereas, in this case, there is no connection between the deposition of soot and the quality of the gas. The evil arises either from the flame being raised so high that some of its forked points give out smoke, or more frequently from a careless mode of lighting. If, when lighting the lamps, the stop-cock be opened suddenly, and a burst of gas be permitted to escape *before* the match be applied to light it, then a strong puff follows the lighting of each burner, and a cloud of black smoke rises to the ceiling. This, in many houses and shops, is repeated daily, and the inevitable consequence is a blackened ceiling. In some well-regulated houses, the glasses are taken off and wiped every day, and before they are put on again, the match is applied to the lip of the burner, and the stop-cock cautiously opened, so that no more gas escapes than is sufficient to make a ring of blue flame; the glasses being then put on quite straight, the stop-cocks are gently turned, until the flames stand at three inches high. When this is done, few chimney-glasses will be broken, and the ceilings will not be blackened for years.

LEVELS OF THE ATLANTIC AND PACIFIC OCEANS.

The popular notion which had so long prevailed that the Atlantic Ocean was many feet higher than the Pacific at the Isthmus of Panama, has been formally exploded. Colonel TOTTEN has decided, after a series of careful tidal observations, taken at Panama and Aspinwall Bay, and connected by accurate levels along the line of railroad, that the mean height of the two oceans is exactly the same; although, owing to the difference in the rise of tide of both places, there are, of course, times when one of the oceans is higher or lower than the other; but their mean level, that is to say, their height at half tide, is now proved to be precisely the same.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

MANUFACTURE OF RAILWAY IRON.

One of the very best practical reforms, says the *Railway Times*, in the railway management of this country, is now taking place in the rail department, by the substitution of iron of less weight but of better character. Most of the heavy rail used for the past six or eight years contained a large portion of refuse and weak material. The strength and wearing qualities of this bore, generally, no proportion to its bulk. The fallacy of, "the heavier the rail the longer it will wear," has been most effectually proved by the most convincing kind of evidence: disarranged finances and lack of dividends. The policy in this matter that we have continually supported for quite a number of years past—the use of medium sized rails but of the first character, to be proved by competent inspection, and a guaranty of wear for a certain period of time—will now, we trust, be generally adopted by the railway companies. There is not a company in the country, no matter how large or valuable its traffic, that can afford to use cheap iron in its track. It leads to insolvency with just as much certainty as the unattended-to leak finally sinks the finest ship that floats. A great number of our railway companies have been for years buying iron, manufactured without definite specifications, without competent inspection, and therefore almost necessarily of the weakest material. The long train of evils consequent upon the use of such trash cannot easily be described in a short article, but every practical railway man knows them definitely enough. The evils are well enough known, and the demand for a reform imperative. Below we copy some portion of a specification for the manufacture of iron for some four of our best managed New England railways. The rails were made in Great Britain under the inspections of a competent person sent out from this country, and thus far the iron as delivered has every appearance of being a very superior article. The cost, delivered in Boston, has been about $60 per ton. Cheap enough! every one will say, if the useful qualities of this rail bears any proportion to those of that originally laid down upon the Lowell and Providence Roads. The specifications were furnished by Mr. STARK, the general manager of the Boston and Lowell and Nashua and Lowell Roads, who has devoted more than ordinary attention to the subject, and whose success in the management of the interests entrusted to his care has won golden opinions from the shareholders. We copy such portion of the specifications as will show their general character and scope.

1. To be manufactured from hot blast pig iron, made from such ores (being all mine, without cinder) as will produce the toughest and most compact wrought iron; refined, and run into metal. The metal to be puddled with coke, and each ball to be hammered under a three-ton hammer, (which shall be so arranged that its force cannot be regulated by the workmen,) into a slab, 10 inches by 2 inches. Three or four of such slabs to be piled together, heated to a soft welding heat, hammered so as to extend the pile at least 50 per cent of its length, and then rolled out into a bar 8½ by 1½ or 1¼ inches. Six or seven, as may be necessary, of these bars to be piled together, heated, and reduced partly by hammering and partly by rolling, to a bloom 6 by 6 inches; then reheated, and rolled into

a rail. All of the heats to be made soft and uniform throughout the piles, so as to insure a good working of the iron, without crushing the fiber, and no cold hammering shall be permitted.

2. The rails to be made to conform exactly to the forms of templates furnished by second parties hereto, and not to vary more than two pounds per yard, either way, from the weights marked on such templates. Lengths to be, in each lot 85 per cent 21 feet long, and 15 per cent 18 feet long; and no variation exceeding 3-16th of an inch to be allowed. To be notched and punched as may be ordered for each lot.

For the purpose of insuring sound ends, the piles shall contain sufficient iron to allow at least one foot in length to be cut from each end of the finished rail; and any rail from which such extra length has not been cut, shall be rejected.

The whole of each lot of rails must be of uniform section throughout, perfectly true and straight, and any that are bent or warped in the manufacture, must be straightened by pressure, and not by hammering. They shall also be perfectly sound, free from splits, cracks, flaws, scoria, imperfect welds, or defects of any kind, and shall have their ends cut accurately true and square.

Each rail to be marked on the side in raised letters, at least half an inch in length, with the name of the railway company for whom made, the initials of the works where manufactured, and the year of manufacture.

3. The manufacturer shall allow an inspector in the employ of and selected by the second parties hereto, to inspect and supervise the entire process of manufacture; which shall be conducted to his satisfaction, and be subject to his approval and acceptance, both as to mode of working and materials used, under the limitations of these specifications. And if, in the judgment of said inspector, any portion of the process of manufacture, or any of the materials used, is not in conformity with these specifications, he shall have the right to reject any such imperfect work.

COTTON ON RAILROADS.

The following, showing the receipts of cotton at Mobile, per Mobile and Ohio Railroad, with earnings of the road for the year ending 31st July, 1860, compared with previous years, indicates the progressive influence of railroads upon the crop movement:—

	Receipts of cotton.			Earnings.		
	'57–58.	'58–59.	'59–60.	1857–58.	1858–59.	1859–60.
August...bales	67	580	580	$23,206 59	$29,783 87	$42,732 85
September.....	5,266	11,613	21,408	43,211 76	57,387 49	106,573 96
October.....	17,866	32,219	41,829	74,410 64	105,416 19	154,158 45
November.....	20,114	36,335	50,286	76,615 05	126,452 49	182,029 64
December.....	23,195	30,899	39,582	84,979 64	117,762 74	152,094 69
January.....	8,644	13,185	33,582	42,651 39	84,219 48	136,700 06
February	12,980	6,643	14,754	68,898 15	64,467 89	101,534 73
March.....	9,747	2,380	9,262	59,754 53	43,164 53	88,914 13
April.....	4,675	2,395	5,934	45,169 81	41,588 10	68,627 98
May	3,796	855	4,141	38,621 05	36,141 28	63,349 28
June.....	618	146	1,542	27,073 89	31,510 48	55,033 65
July.....	482	150	595	30,909 37	35,284 64	48,358 20
Total.....	107,450	137,430	223,890	$617,501 87	$773,179 18	1,200,108 61

Amount of cotton received for the commercial year, 227,706 bales; during August, 1860, 4,396.

RAILWAYS IN TEXAS.

The Houston *Telegraph* for September 4th devotes considerable space to the above subject. Besides other information, it gives the following:—

The increase of taxable property in Brazoria County, since the railroad reached there, has been astonishing. In 1858, before the grading had more than commenced in the county, the total value on the tax rolls was $4,705,340. The taxable property this year is $6,240,296, the increase in two years being over two-and-a-half millions of dollars.

A year or two ago the county of Brazoria voted to take $100,000 stock in railroads, issuing county bonds for that amount in payment therefor. In order to pay the interest on these bonds, and the principal as fast as it should become due, a tax of 25 cents on the $100 was levied on all the taxable property in the county. The interest has been paid promptly, and the County Treasurer is now authorized to redeem all bonds maturing on the 1st day of March next. Add to this, the county tax has been reduced to 6¼ cents on the $100, and the special tax for the redemption of the bonds to 12½ cents on the $100, making the whole reduction nearly $11,000.

Ten years ago, say September 1st, 1850, except with a few visionary persons in Galveston and Houston, the idea that any person then living in Texas would ever live to see a railroad in the State was simply regarded as absurd; for fifteen or twenty years old Texans had got along without them. They had taken their long and tiresome horseback journeys through the country, painfully traversing from twenty to thirty miles a day when roads were good, and less than that distance at other times. They had sent their produce to market and received their supplies by the slow and laggard ox team, scarcely calculating on more than ten miles a day. Planters living in the far interior thought they were doing remarkably well if they got the returns of their September pickings by Christmas. Merchants bought goods in the spring for the fall trade, and only received them after six weeks' or two months' exposure to the vicissitudes of the voyage of a so-called prairie ship. In the height of the season, our market towns, especially Houston, were one large cattle pen, and the streets exhibited, from morning till night, only a sea of horns, intermixed with the white covers of the wagons. Long trains of cattle—fourteen, sixteen, and sometimes twenty oxen to each wagon—were constantly arriving and departing with a snail-like pace, wearily dragging their loads through the mud. And this continued until within the past four years.

In 1854, we believe, the Buffalo Bayou, Brazos, and Colorado road was first opened for business to the Brazos timber, but did not reach Richmond till the latter part of 1855. In 1853 work was begun on the Central road, and in June of that year there were fifty hands at work on it. Both these were, however, generally regarded as schemes for which the State was not ready. Still the projectors struggled on, and in September, 1857, the Central, having been completed to Cypress City, was opened for business. Its influence, small as it was in comparison to the position it has since attained, was at once felt. Business took a new start in Houston. Other railroad enterprises felt that the success of this was an assurance of success to them, and the spirit of railroad building became, from that day, a dominant spirit in all this section of country.

Four years ago there were in all Texas but two actual railroads, viz., the Central, open twenty-five miles, and the Buffalo Bayou, Brazos, and Colorado, open thirty miles, in all fifty-five miles. On the Central there were two locomotives, and two on the Buffalo Bayou, Brazos, and Colorado. Besides these, one had just been received for the Tap road, then in progress of construction. To-day we have over three hundred and twenty miles of finished railroad centering in Houston, and some thirty-five finished in other parts of the State. On these roads there are now thirty locomotives, daily awakening the echoes with their whistles, and rumbling over the earth with their heavy trains. Every morning the traveler sets out from Houston, and by eleven o'clock he is three good days of horseback traveling in the interior, reaching, in fact, a fair fourth day's journey before night. Persons daily leave town, and having transacted business fifty

or seventy miles away, arrive at home to a three o'clock dinner. Freights for all parts of the interior are in one day put as far forward as formerly in a week. In a word, people now live as much and do as much in one year as they used to do in two.

SOUTHWESTERN RAILROAD COMPANY OF GEORGIA.

The reports of the chief engineer and superintendent of this road show very clearly the operations of the road for the year ending 31st of July last, its condition, and the condition of the motive power :—

The net sum earned for the year, after paying all ordinary and extraordinary expenses, is		$385,012 29
To which may be added the amount of premium and discount shown on treasurer's statement		3,841 53
Total		$388,853 82
The following amounts have been paid, viz. :—		
February dividend, 4 per cent	$93,424 00	
Interest on bonds	27,632 50	
Annuity to city of Macon	1,250 00	
		122,306 50
Balance		$266,547 32
And the Board has this day declared—		
A semi-annual dividend of 4 per cent	$116,876 00	
An extra dividend of 5 per cent	146,095 00	
		262,971 00
Leaving a surplus of		$3,576 32

NEW ORLEANS, JACKSON, AND GREAT NORTHERN RAILROAD.

TOTAL EARNINGS PER MONTH FOR TWELVE MONTHS ENDING THE 31ST OF AUGUST, 1860.

1859—September	$66,900	1860—March	$124,610
October	101,160	April	90,912
November	140,862	May	81,168
December	160,256	June	74,418
1860—January	115,369	July	76,376
February	119,472	August	71,749
Total, 6 months	$704,409	Total, 6 months	$518,333
Total for twelve months ending 31st August, 1860			$1,222,742
Total for twelve months ending 31st August, 1859			871,716
Increase			$351,026

Increase for 1860 over 1859 a fraction over 40 per cent.

The earnings for the year ending the 31st of August, 1858, were $382,689.

The number of bales of cotton brought over the road for the last twelve months was 191,572 against 145,373 bales the year previous.

PROPHECY IN REGARD TO RAILROADS.

The following is a curious instance of the effect of time and experience upon the well-considered judgment of men :—

"We are not advocates for visionary projects that interfere with useful establishments. *We scout the idea of a railroad as impracticable!* What can be more palpably absurd and ridiculous than the prospects held out of locomotives traveling *twice as fast* as stage coaches! We should as soon expect the people of Woolwich to suffer themselves to be fired off upon one of Congreve's ricochet rockets, as to put themselves at the mercy of such a machine, going at such a rate."—*English Quarterly Review*, 1825.

AMERICAN RAILROAD ENTERPRISE IN BRAZIL—HISTORY OF BRAZIL ROADS.

The Don Pedro II. Railway is one of the main lines of railway connection now being developed in the finest empire of South America. It extends far into the interior from Rio, as a grand trunk, with many branches ramifying on either side, and is being pushed forward rapidly by the Philadelphia company to whom the contract was awarded in the latter part of 1857. The first section, forty miles, was completed earlier in the year. The Emperor himself, on the 2d of June, started over the American portion of the road, to inspect it. The railroad is to extend 300 miles, into a coffee district. The second section traverses a mountain range, some 3,000 feet above the level of the sea. Some of the fillings required are enormous, while the shafts for tunneling have to be sunk in some places upwards of 450 feet, through the most solid kind of trap rock. Under the skillful labor of the gentlemen who are now at work at it, it will be done properly, and as speedily as the character of the work will allow.

Hitherto American enterprise in Brazil has been far below that of the leading nations of Europe. Remunerative contracts, requiring skill and energy, were constantly obtained by Englishmen, Germans, Frenchmen, and even Portuguese; but Americans had no fair play, until the railway system of Brazil was matured. Their experience with single lines, in a new country, was just what Brazil required. It was then that Col. CHARLES F. M. GARNETT, of Virginia, was employed as engineer-in-chief; and more of our countrymen have thus been led to Brazil than ever before. Col. GARNETT, we understand, has returned to the United States, but American skill and enterprise are now better known and appreciated in Brazil than formerly, and, if our countrymen are wide awake to their own interests, they will not neglect the opening there.

The Don Pedro Road is the sixth railway begun in Brazil. The names of these enterprises are as follows:—Mauá Railway, begun in 1852, finished in 1853; Pedro II. Railway, first section, begun in 1855, finished in 1857; Pernambuco and San Francisco Railway, begun in 1855, finished in 1858; Bahia Railway, begun 1857, finished in 1860; Canto Gallo Railway, begun 1860; San Paulo Railway, begun 1860.

The Brazilian government guaranties a certain per cent to the stockholders of all, or nearly all, of these railroads. The enlightened policy of the intelligent head of the Empire, and the peace, which is the normal condition of Brazil, speak much for the advance of that country, and make it stand out in bold contrast with the ever-heaving, revolutionizing, Spanish-American Republics.

The *Journal of Commerce* presents several interesting particulars of railway development in Brazil, based upon the volume entitled "Brazil and the Brazilians," from which we quote:—

As to the importance of Don Pedro, we can only say, that thousands and tens of thousands of muleteers and mules are annually employed to bring down to the point of embarkation the rich products of Nova Friburgo, Canto Gallo, and vicinity. The coffee plantations in the elevated uplands surrounding these two-named towns rank among the best in the province of Rio Janeiro. Many of these plantations are owned by Brazilians, but there are some very prosperous establishments whose proprietors are Swiss and Frenchmen. The baron of New Friburgo has immense coffee plantations in the mountains and near the village which bears his name. Between New Friburgo and Canto Gallo there is a fine

region of country more thickly settled than the traveler is accustomed to find in Brazil. Such is the amount of cultivation that one is reminded by the scenery of the beautiful and richly-tilled valleys of Switzerland. Beyond Canto Gallo, to the River Parahiba do Sul, is a large tract of land under cultivation, and susceptible of still higher tillage, mostly suitable for coffee, sugar, cotton, Indian corn, and the mandioca plant, from which a coarse meal and tapioca are produced. The city of Campos is situated upon the River Parahiba, twenty miles from its mouth. It is surrounded by vast fertile plains, which give the name to the city. The commerce of this place is extensive, and a large number of coasting smacks are employed to transport thence to Rio Janeiro the sugar, coffee, rum, and rice, which are brought there from the neighboring plantations. When the new railway is completed to Campos, a distance of nearly two hundred miles, an immense traffic must flow over the line indicated. If an American colony should be formed in Brazil, these salubrious uplands, where the fruit of the tropics and the cereals of the temperate zone may flourish together, would be the proper and profitable spot for such an undertaking.

The Maua Railroad runs over the plains which extend from the bay to the base of the Oregon Mountains, and is on the highway between Rio and the mountain city of Petropolis, which is a great summer retreat, and where the Emperor has a country-palace.

The tunnel of Mendez is a stupendous undertaking. Those who, from the city of Rio de Janeiro, have gazed upon the Alpine peaks which surround that city, will have some idea of the difficulties in the way. But, once over this mountain range, we find a country resembling the more level plains of Pennsylvania. The transportation from these uplands has hitherto been by the slow, expensive, and painful means of mules, down steep narrow paths which cannot be found out of South America, and Spain and Thibet. The tunnel of Mendez pierces this mountain range, and will be, when finished, 7,200 Portuguese feet, which are equivalent to one mile and a half English. Up to the 1st of April, this year, 180 feet had been excavated at the southern entrance, and 170 feet at the northern, (in all 370 feet,) and besides this, three immense shafts have been sunk at different places from the summit of the mountain, so that a steam-engine is enabled to pump off thousands of gallons of water, which, otherwise, would greatly impede the laborers in the horizontal works. The tunnel is wholly made through a rock which the Italians call *granitilho*, which differs from primitive granite in being more friable, and more easily affected by powder. The contractor says that he will soon be in condition to have his force disembowel the mountain at the rate of 45 or 50 feet per month, which would insure the completion of the tunnel in less than two years.

Turning to the north we find, 800 and 1,200 miles away from Rio de Janerio, the Pernambuco and San Francisco, and the Bahia and San Francisco Railroads. They have the same end in view, *i. e.*, to tap the present and future commerce of the rich valley of the San Francisco and the intermediate region. If any one will examine a map of Brazil, he will see the very great importance of these two railroads. The river San Francisco, which is as large as the Volga, falls into the ocean near ten degrees of south latitude, but for nearly three hundred miles from its mouth is interrupted by a series of rapids, ending with the falls of Paulo Alfonso, an immense cataract over which the river madly plunges. This interruption to navigation ceases near a point called Joazeiras, which will be found clearly indicated in the map already referred to. Now, above Joazeiras to the mouth of Rio das Valhas, in the Province of Minas Geraes, there are, on the San Francisco alone, seven hundred miles of direct steamboat navigation, and when we consider the various affluents, there must be more than as many more miles. In fact, the San Francisco is the largest river emptying into the Atlantic between the La Plata and the Amazon. It rises in the rich province of Minas Geraes, and waters the fertile soil of the important provincial divisions of Bahai, Pernambuco, Sergipe, and Alagoas—the very garden of the Brazilan Empire. The cities of Bahia, San Salvador, (130,000 inhabitants,) and Pernambuco, (80,000,) are contending for the trade of this basin. Both have planned railways

to Joazeiras, and both have some miles in running order, but great energy will be required to push these roads through the distance of more than three hundred miles. Such, however, is the necessity of these iron ways, through a most fertile tract of country, (where, as on the Pernambuco road, one may count in 70 miles 300 sugar plantations within easy distance,) that their completion is only a question of time.

The San Paulo Railway, all of whose stock has been taken, and the money obtained in London, will lead from Santos, a hundred miles or more south of Rio, to the city of San Paulo, the capital of the flourishing province of the same name. Its ultimate terminus will be further inland. Santos is the port of the great coffee region of Southern Brazil, and there is no doubt, from the prosperity of the province of San Paulo, and the great demand for her production, that the railway will be a profitable one. San Paulo would be an excellent portion of the Empire for Americans to establish themselves for the cultivation of Indian corn, etc.

Of other railways in South America, there is a short one in operation in the province of Buenos Ayres, and another of a few miles is projected from the city of the same name to a navigable point for large vessels on the La Plata. In Chili, through the far-seeing policy of WM. WHEELWRIGHT, Esq., an American, originally from Newburyport, the first railroad of any length in South America was opened. This is the important Copiapo Railroad, which is situated in one of the richest mining districts in the world. The second railroad, (of which now many miles are opened,) is to connect Valparaiso and Santiago, the capital of Chili. This road will do much to develop and enlighten the best of the Spanish republics. In Peru there is but one little railway, leading from Callao to Lima, a distance of seven miles. We believe that these comprise, with the Panama Railroad, the iron-ways of South America, although we have a faint impression that one has been projected in English Guiana. Railroads on the Pacific coast will always be difficult of construction, but in the Argentine Confederation and the Empire of Brazil, the natural difficulties are no greater than in our own land.

RAILROAD RECEIPTS FOR SEPTEMBER.

	1860.	1859.		
Baltimore and Ohio, main line	$391,882	$333,250	increase	$58,632
Washington Branch	42,801	40,426	"	2,375
Northwestern Virginia Branch	29,700	19,527	"	10,173
Total	464,383	393,203	"	71,180
Buffalo, New York, and Erie	67,628	51,546	"	16,082
Chicago, Burlington, and Quincy	225,896	181,061	"	44,835
Chicago and Northwestern	81,200	51,319	"	29,881
Cleveland and Toledo	84,075	73,000	"	11,075
Galena and Chicago	221,617	208,803	"	12,814
Housatonic	33,124	29,281	"	3 843
Hudson River	180,000	156,973	"	23,027
Illinois Central	257,633	246,655	"	10,978
Macon and Western	31,959	37,523	decrease	5,564
Michigan Central	251,423	210,837	increase	40,586
Michigan Southern and Northern Indiana	236,000	181,000	"	55,000
Milwaukee and Mississippi	140,043	104,878	"	35,165
New York Central	851,795	743,598	"	108,197
New York and Harlem	105,473	97,218	"	8,255
New York and New Haven	92,051	90,554	"	1,497
Pittsburg, Fort Wayne, and Chicago	246,708	233,312	"	13,396
St. Louis, Alton, and Chicago	94,713	82,884	"	11,829
Toledo and Wabash	106,100	74,689	"	31,410

STATISTICS OF AGRICULTURE, &c.

GRAPE CULTURE ON KELLEY'S ISLAND, OHIO.

Among the group of islands which are clustered in the southwestern waters of Lake Erie, there are four—Kelley's, South Bass, Middle Bass, and North Bass. They together contain between 4,500 and 5,000 acres of land, which is being rapidly brought into a state of high and productive cultivation.

They were first visited for the wood and timber which they furnished; of the latter, cedar posts formed quite an article of export at one time, but this timber has become nearly exhausted. They still furnish considerable quantities of wood of a very superior quality. We have seen on the wharf at North Bass, a nicer article of wood than we ever saw in any other market.

KELLEY'S ISLAND.

This island contains about 2,800 acres, and has a population of 476, as is shown by the present census. The island is based upon a fossil bearing limestone, which contains an almost endless variety of casts of shells, corals, &c., which are found abundantly everywhere on the island and along the shores. It is divided into two rocky spines, which are elevated several feet above the level of the lake, forming gentle slopes and giving a good surface drainage. The elevated points are stony, with thin, though rich soil. The intervals and slopes have a deep, rich soil, resting upon a thick, compact stratum of clay.

GRAPE CULTURE AND WINE-MAKING.

It is now well settled, in the minds of such as have watched the progress of the matter, that Kelley's Island is destined to become one of the most important vine-growing sections of our country. The first cultivated vines were set on the island in 1843, and for fifteen years have never failed to produce fruit. The old vines are yet healthy and are in vigorous bearing.

Although grapes were thus early cultivated upon the island, it was not until quite recently that vinyards were set for the purpose of making grape-growing and wine-making a business. From statistics furnished us we learn that up to 1858 there were but 16 acres in bearing; in 1859, 20 acres, while for the present year the whole amount of bearing vines reaches 62 acres.

The following table which has been furnished us, was made out with care and gives a correct and full statement of the grape cultivation at this time. The number of acres by actual measurement would be more than the table shows, as the estimate was made from the cuttings, and no allowance made for the alleys which are left through all of the larger vinyards:—

GRAPE STATISTICS OF KELLEY'S ISLAND, OHIO, 1860.

	In bearing.	Set in 1859.	Set in 1860.	Total.
Acres	62	69¼	99¼	230¼

This table shows how rapidly this new branch of industry has sprung up on the island. From 16 acres in bearings in 1858, they now have 62 acres in bearing, with a total of 230¼ in cultivation—99¼ of which are of this year's setting.

The Catawba is the principal grape cultivated. This ripens perfectly and seems better adapted to the climate of the islands and the shore immediately along the lake, than it is to the interior, where fogs retard the ripening, and early frosts cut it off before it is matured.

MANNER OF CULTIVATION.

The ground is first prepared by being thoroughly underdrained and by deep plowing. The roots are then placed six feet apart in rows of eight feet. The growing plants are trellised on iron wire stretched between cedar posts.

The best cultivators have abandoned the old mode of close pruning, so much in vogue in European countries, and followed in many places in the United States. They say that a larger growth of wood is needed here. The old method of trenching the ground has been abandoned as it seems to injure the vines.

We are informed that the whole cost of fitting the ground, setting the plants, trellising and cultivating until the vines are in bearing, is $300 per acre. The trellising costs about $130 per acre. There was consumed on the island this season 15 tons of No. 9 telegraph wire, and it is estimated that twice that quantity will be needed next year. It is estimated that one man will cultivate three acres, calculating his labor for the entire year.

The maximum returns per acre is given us as $1,100. Mr. CARPENTER for one year realized that amount from an acre, but the vines have never fruited well since. The average yield is $600. The price of grapes and of the fresh juice is growing less each year, principally because many wish to realize their money, so as to enable them to plant a larger breadth of vines. Grapes sold last year in the vinyards for 7 cents per pound, and the juice for from 90 cents to $1 per gallon. Land on the island is valued at from $100 to $200 per acre.

What they will soon need on the island is a well constructed wine cellar, where their wines can be properly kept until they are well matured. But in this particular they are soon to be well provided for. Mr. CARPENTER has a cellar now in process of construction, which, when completed, will not be excelled, in some particulars, by anything in this country, and so far as we know, in the world.

By excavating the southern slope of the island several extensive quarries of stone have been opened, and among the number Mr. CARPENTER has one of the largest. The rock is seamed back into the hill and transversely, cutting the whole stratum into huge blocks of various sizes. Mr. CARPENTER found in his quarry two of these seams 35 feet apart, running back in perpendicular lines, with faces exactly parallel and as even as a wall of cut stone. Mr. CARPENTER conceived the idea of removing the block of stone found between these seams for the purpose of constructing a wine cellar. After removing this huge block of stone to a perpendicular depth of 16 feet, and back into the hill a distance of 110 feet, he came to a seam, cutting the others at right angles. This gave him the side and back walls and the floor of a cellar, all of solid rock, and left him nothing to do to complete it but to provide for the roof and the front wall. The floor is on a level with the rock in the quarry in front of the cellar, and as these seams extend down to depths unknown, they will drain it most perfectly. The front is to be a wall of mason work, and the roof an arch of stone.

At a height of seven feet from the floor, upward, there is found a stratum of

shale-like rock, about four feet thick, which is so broken as to enable the workmen to displace it with picks and heavy hammers, and along this, the masons, at the time of our visit, were cutting a broad, substantial shoulder. for the base of the roof arch to rest upon. The roof will thus commence seven feet from the floor along the sides, and, resting upon this shoulder cut in rock as solid as the eternal hills, will be carried up to a point in the center, 16 feet above the floor, and will thus have a curve rising nine feet from the base, and this will bring the top of the arch on a level with the surrounding surface.

Over this cellar, built like the houses of Edom, or the ancient tombs of Asia, Mr. CARPENTER will erect his wine house, and so arrange it that the juice will be conducted from the press vats to any part of the cellar below. The capacity of the cellar will be ample for 300,000 gallons of wine. It is broad enough for three rows of casks, placed so as to leave the requisite room to pass along and examine both ends of the casks—a thing which has to be done daily in wine cellars.

COTTON.

The third annual report of the British Cotton Supply Association contains many curious facts, illustrating the energy and research of the association, acting under the imperative necessity of finding some source to supply, if not present requirements, at least the future increase of demand.

In examining this report, we are rather surprised at the extent of the ground covered by the enterprise of the association. There is not an inhabited cotton country in the world to which their attention has not been directed.

Through the influence of her Britannic Majesty's consuls, the cultivation of cotton has been commenced in Turkey. The Home Minister of Greece has introduced it into some dozen departments of that classic land, and in the island of Cyprus an estate of eighty thousand acres has been devoted to it. A few months ago, Sir MACDONALD STEPHENSON, who is engaged with a railway connecting Smyrna with the fertile valley of the Meander, in Asia Minor, has distributed seed and directions for planting and gathering the crop among the farmers of that celebrated region.

Of Egypt, the committee say that they are about publishing a report, showing the origin, progress, and extent of the cotton culture in the land of Pharaohs. That report, they add, will contain suggestion for increasing the growth from one hundred thousand bales per annum to the large figure of one million. In Tunis, the Bey, stimulated by the representations of the committee, is using exertions to induce his subjects to raise cotton. In Western Africa, at Sierra Leone and Sherbro, cotton gins have been introduced, and a trade commenced in the native cotton raised in the neighborhood. In Liberia, the President is making great exertions to establish the cotton culture. An agent of the association has been traversing that country, and has awakened a strong interest in the subject. Along the Gold Coast, the governor of the English possessions is exerting himself to carry out the views of the association. At Accra and Cape Coast Castle, are agricultural societies, which make the cotton cultivation their specialty. A great deal of cotton is raised in the countries adjacent. The Accra Agricultural Society has engaged with a Lancashire firm to purchase this cotton, which they buy in the seed for less than *a cent* a pound. This cot-

ton, cleaned, is worth in Liverpool fourteen cents a pound. Not long since an agent of the association visited the interior. His report, it is said, leaves no doubt that soon a large export trade will grow up. In one district this agent found 70,000 people busy growing, spinning, and weaving cotton.

The prospect is, that in the numerous towns which stud the coasts cotton marts will be established. At Elmina, Benin, Old Calabar, and the Cameroone, a good beginning has been made by the distribution of seeds and cotton (hand) gins. At Lagos, already a hopeful trade has been opened. The exports from the western coast rose, from 1858 to 1859, from 1,800 bales to 3,447. At Abbeokuta, the native chiefs have contracted with the New York African Civilization Company for the allotment of lands to a colony of free blacks from the United States. An English company is forming in aid of this enterprise, one gentleman offering to take shares to the amount of $10,000. Along the line of the river Niger it is proposed to establish trading stations. It is reported that immense quantities, worth, clean, in Liverpool, 16 cents, may be bought, cleaned, on the Niger, for 6 cents.

In South Africa, the Government of Natal is stimulating the cotton culture by proposing to receive what is called the hut tax from the native subjects in cotton. Numerous farmers there are planting it. One of them reports that he has on hand 100,000 pounds. In Eastern Africa, the Oxford and Cambridge Mission is about to establish a European colony in the Valley of the Shire. one great object of which will be the raising of cotton.

In the West Indies efforts are being made to revive and extend the cultivation. In Havana there has been established a company (the Anglo-Spanish Cotton Company) for this purpose, with a capital of four millions of dollars. In Jamaica the British Cotton Company report very encouraging progress.

In South America some enterprising cultivators have taken cotton cultivation in hand with excellent prospects. It British Guiana an effort is being made to extend the cultivation there.

In Batavia, East Indies, good progress has been made; and in Java seed has been furnished for planting on one of the estates in that island. In Ceylon the subjects of the crown are to be allowed to pay a portion of their tax in cotton.

From the Feejee Islands the committee have received specimens of cotton growing wild there, and reproducing for from ten to fifteen years. The samples are so valuable as to range from 13 to 24 cents a pound. It is calculated that from one-half the area of these islands might be raised three or four millions of bales. But as the total population of the islands is only 200,000, it is clear that there must be a large increase to their working population before that pitch of excellence can be reached. The committee hope that the cession to Great Britain, proposed by the chiefs, will be accepted; and add the expression of their high admiration of the quality of the cotton growing wild on the islands. They say that from no other quarter of the world "has such a collection of graduated qualities been received."

Pegu is also receiving attention. Australia has entered into the cultivation, and is expected soon to export freely. Samples of "sea island" from Australia have sold at from 1s. 8d. to 2s. per pound.

But it is evidently to India that this spirited association looks most hopefully

for immediate relief. Their report adds to the evidences of the general and great solicitude which is felt in England, to make India a great cotton-exporting country. But it is only recently that the feeling has prevailed that she could become so. And even now the committee say, "no greater want exists in England than a knowledge of the wondrous resources of India." The association have been indefatigable in supplying that want. The fruits of the exertion made there are highly encouraging. It is supposed that the export this year will reach a million of bales.

It is probable that the results of such exertions, co-operating with the growing demand, will continue to increase the supply. But it is not probable that the supply will be for many years much more evenly balanced with the demand than it is now. A relatively deficient production would so raise prices as to check consumption. After all, if we consider a statement in this report that the present consumption of Europe and the United States is at the rate of six-and-a-half pounds a head, it will be seen that the demand is not at this moment so far in advance of the supply, however much present production may be behind the present or prospective capacities of the British cotton mills. With such a consumption per head, the population of Europe and America could be supplied by the yield of our own cotton fields alone. But the tendency undoubtedly is to an increase of that amount per head, so that the average shall be brought nearer the United States standard, which is fifteen pounds per head per annum. Supposing the average consumption per head throughout the civilized world to be the consumption of the United States, its inhabitants would require two countries with the present capacities of the United States to supply it.

In the view we take of it, attempts to reduce the present price of cotton will be unavailing. At present prices, the tendency of consumption is to outrun production. Increased production will only lead to increased consumption; but not to any reduction of price. In consequence, our cotton planters have nothing to fear from all the efforts made to augment the production.

To what further extent the cotton cultivation may be pushed in the United States is a question which cannot be answered without a knowledge of the quantity of labor available for that production. The cotton area in this country would probably produce one hundred millions of bales a year. But such a production would pre-suppose an addition of some seventy or eighty millions to the number of our slaves, an addition which it would take the country 150 years to realize without importations from Africa. Confining our attention, therefore, to the more immediately interesting question of how much additional labor can be applied yearly, we may assume that the natural increase of the blacks will add 1,500,000 at the end of ten years to the existing number, or an average of 150,000 a year. As cotton will continue to pay better than any other branch of agricultural industry, it will be prosecuted somewhat at the expense of those other branches by withdrawing hands from the latter. There are no statistics to show the actual numerical amount of this withdrawal. We have heard it stated at 60,000 annually from all the non-cotton slaveholding States. This emigration would consist in a large measure of hands purchased expressly for use on the cotton plantations. If we suppose that from both sources, natural increase and emigration, an addition be made to the working force of an average of 70,000 hands yearly, we shall have as the result of their labor an increase in

ten years of 3,500,000 bales. This would be an average of 350,000 bales a year, and an increase of 80 per cent on the estimated crop (say 4,400,000 bales) of this year. The increase in the last ten years was from 2,600,000 to 4,400,000 bales, or 70 per cent; so that the result we have indicated varies only so far from the experience of the last ten years as may be supposed to be warranted by the increased stimulants to the cultivation of our great staple.

But, as we have remarked, this enormous crop of near eight millions of bales will probably all be sold at present prices, paying our planters and merchants some sixty dollars a bale, and enriching the country by an annual flow of wealth into it of near four hundred millions of dollars.

A CALIFORNIA FRUIT-ORCHARD.

We call attention, says a California paper, to the famous Briggs' Fruit-Orchard, advertised in our columns. This is undoubtedly one of the most prolific fruit-orchards in the United States, if not in the world. We give the following items from a letter which was addressed to us by the owner:—

BRIGGS' RANCH, July 19th, 1860.

EDITOR FARMER:—Yours of the 16th inst. is before me. Our orchard has taken the first premium for the two past years.

In 1858 we sold 480,000 pounds of fruit, mostly peaches and nectarines. Our net profits were about $50,000. In 1859 we sold as follows:—

Peaches.....lbs.	841,300	Apples .....lbs.	15,000	Cherries.....lbs.	200
Nectarines.....	121,000	Pears.....	5,000	Figs	475
Apricots.....	85,000	Quinces	2,500		
Grapes	25,000	Plums.....	1,000	Total	1,046,475

The fruit neted about 7 cents per pound, $70,000; gross, $100,000.

This year, 1860, we have sold about—

Cherries....lbs.	2,000 at 60. cts per lb.	Apricots.....lbs.	40,000 at 20 cts. per lb.
Plums.....	2,000 at 60 "	Apples.....	3,000 at 25 "

We have yet to pick:—

Apricots ....lbs.	10,000	Grapes.. ...lbs.	30,000	To pick.....lbs.	1,057,000
Apples.....	100,000	Figs.....	8,000	Picked.....	47,000
Plums	10,000	Quinces.....	3,000		
Peaches	800,000	Pears	6,000	Total.....	1,104,000
Nectarines	100,000				

Respectfully yours,

G. G. BRIGGS.

Here is a fruit orchard of 40,000 bearing trees, and an annual crop of one million pounds of fruit, and a probable net income of $80,000 or $100,000. This immense orchard is now for sale.

THE CROPS IN CALIFORNIA.

A merchant in San Francisco estimates that California will produce this year 7,500,000 bushels of wheat, which, after deducting for consumption and seed, will leave a surplus of 3,525,000 bushels for export. The barley crop of the State is said to be greater than the aggregate of the entire crop throughout the United States, and is estimated for the present year at 7,500,000 bushels, which will leave a surplus of 4,533,000 bushels.

STATISTICS OF POPULATION, &c.

POPULATION AND GROWTH OF BOSTON.

The Boston *Journal* gives full returns of the population of Boston by the census which has just been taken by the United States Marshal. They are as follows, by wards:—

Wards.	1860.	1855.	Increase.	Dec.	Wards.	1860.	1855.	Increase.	Dec.
1.....	17,189	19,264	....	2,075	8.....	12,729	12,690	39	....
2.....	19,356	15,963	3,393	....	9.....	10,428	9,451	977	....
3.....	14,901	13,175	1,726	....	10.....	13,430	12,553	877	....
4.....	7,047	7,912	....	865	11.....	20,519	13,264	7,255	....
5.....	10,425	10,428	....	3	12.....	24,921	17,931	6,990	....
6.....	11,602	11,597	5	....					
7.....	15,355	18,430	....	3,075	Total.	177,902	162,748	37,114	....

The population of the city, according to the United States census of 1850, was 138,788. The gain in ten years has therefore been 39,114, which, considering the limited area of Boston, and the encroachments of business even upon those restricted limits, is a gratifying increase. The returns from the adjoining cities and towns, which should really form a component part of Boston in estimating its population and commercial importance, will show even a greater rate of increase. Roxbury, for instance, has gained from about 15,000, in 1850, (excluding West Roxbury, which has since been set off.) to 25,138, in 1860—an increase of over 66 per cent. the increase in Boston being a fraction over 28 per cent.

It is interesting, in this connection, to note the movement of population resulting from the steady growth of business in certain sections of the city. Thus wards one, four, and seven show a large decrease, and in wards five and six the population has been nearly stationary. These are the business wards of the city; ward seven, which shows the greatest decrease, being the center of the business portion of the city. The tendency of population has been to the southern wards, which show a very large increase.

There is no precise account of the population of Boston for nearly the whole of the first century of its existence. In 1638, eight years after its settlement, it was said to be "rather a village than a town, consisting of no more than twenty or thirty houses" In 1675, the inhabitants were estimated at 4,000; in 1698, at 7,000, (both estimates being probably too large;) in 1704, at 6,750: and in 1720, at 11,000.

The first enumeration now known was made in 1722, during the prevalence of the small pox, when ENEAS SALTER was employed by the selectmen to ascertain the number of the inhabitants, or, as DOUGLAS the historian says, to make "a perlustration of the town." He reported 10,567, "besides those who had died or moved out of town," the decrease from 1720 being attributable to these causes, the deaths from small pox alone having been 771. In 1735, the population was estimated at 16,000. In 1742, a census showed a population of 16,382, and ten years later another census gave 15,731, the small pox having again reduced the population. In 1765, a census taken by order of the General Court showed a population of 15,520.

The population of Boston during the Revolution was considerably reduced. In 1776 it was said to contain 2,719 white inhabitants only, many being dispersed in the country. In 1777, the whole number of males of 16 years and upwards was 2,863. In 1781, the population was 15,520. It will thus be seen that the population of Boston remained nearly stationary for many years. It has been said that the new dwelling houses erected during this time scarcely averaged one a year.

After the peace of 1783, the population of Boston began gradually to increase.

The following table, showing the results of the census by decennial periods, will exhibit the increase during this century :—

Years.	Population.	Increase.	P. ct.	Years.	Population.	Increase.	P. ct.
1800.....	24,937	....	..	1840.....	85,000	23,608	38
1810.....	33,787	8,850	35	1850.....	138,788	53,788	63
1820.....	43,298	9,511	28	1860.....	177,902	39,114	28
1830.....	61,392	18,094	41				

The period from 1840 to 1850 shows the greatest increase in this century. It was then that the population of Boston showed the impetus which had been given to its business and prosperity by the construction of the network of railroads which linked her to the other principal cities and towns in New England, and to the Great West. If the growth of Boston has, since that time, been more gradual, it is owing to causes which we have already indicated. When we obtain returns from the neighboring cities and towns within a radius of ten miles of State-street, embracing, outside of the city limits, a very large proportion of the business men of Boston, it will be found that the march of population has kept pace with the progress in other eastern cities whose limits are less circumscribed. The actual area of Boston proper, it should be remembered, is less than two miles square, and, except in East and South Boston, and at the extreme south part of the city proper, this area was densely populated in 1850.

POPULATION OF SPAIN.

The first census of Spain that has any pretensions to accuracy was taken in 1857. During the following year additional statistics were collected, all of which have been combined in one volume, and lately published by order of her Catholic majesty's government. From these statistics it appears that "lovely Spain—renowned, romantic land" of the poet, is not far behind neighboring nations in the great march of industrial improvement. Indeed, her progress within the last decade has been, perhaps, as great as any other European nation. The population of Spain, in 1857, was 15,464,340, the superficial extent in English square miles 195,782, making the average number of inhabitants to each square mile nearly 79. Of the whole population, 7,670,933 were males and 7,793,407 females; married males, 2,784,057; married females, 2,790,485; unmarried males, 4,521,453; unmarried females, 4,307,166. It may be said that, in round numbers, the number of males to females in the whole population—young and old, married, single, and widowed—was 100 males to 102 females. The proportion in England and Wales in 1851, the date of the last British census, was 100 males to 104 females; in Scotland, 100 males to 110 females; while in our own State of New York, in 1855, it was 100 white males to 100.5 white females. From these statistics we may draw the consoling conclusion to the fair sex of our State that, for every four old maids in Spain, eight in England and Wales, and twenty in Scotland, we have only one in New York.

There are only four cities in the whole kingdom whose population exceeds 100,000. These are, Madrid, 281,170; Barcelona, 183,787; Seville, 112,529; Valencia, 106,435. There are five other cities having a population ranging from 40,000 to 70,000.

POPULATION OF MILWAUKEE.

The population of Milwaukee has advanced steadily and rapidly during the last twenty years, as will be seen by the following table, showing the progress every five years :—

1835.	1840.	1845.	1850.	1855.	1860.
500	1,700	8,000	20,061	30,448	45,325

Like other Western cities, it has had its trials, but it is now enjoying an unusual degree of prosperity, consequent, to a great extent, on its railroad advantages.

POPULATION OF SOME OHIO TOWNS.

	1850.	1860.		1850.	1860.
Cincinnati	115,435	160,060	Marietta	3,175	4,300
Cleveland	17,034	43,550	Mt. Vernon	3,711	4,281
Toledo	3,829	13,784	Ironton	574	3,695
Chillicothe	7,100	7,800	Bucyrus	....	3,552
Springfield	5,108	7,000	Fremont	1,464	3,527
Portsmouth	4,000	6,800	Gallipolis	1,685	2,811
Urbana	2,020	5,400	Painesville	....	2,624
Newark	3,654	5,050	Hillsborough	1,892	2,200
Mansfield	3,557	4,500			

The population of the principal cities (excluding Cincinnati) of the three great valleys in the southern district of Ohio is as follows:—

	1860.	1850.
Zanesville, Muskingum Valley	9,212	7,929
Columbus, Scioto Valley	18,638	17,882
Dayton, Miami Valley	20,182	10,977

The increase of the population of Dayton, it will be seen from the above, has been nearly 100 per cent, and this has placed it ahead of Columbus.

CENSUS OF CINCINNATI.

We present below, as interesting at this time, the vote of the city for governor in 1859, and the population of the city, according to the showing of the census. The ratio is 7.78 persons to the voter. It will be seen that the corrections which the Marshal has had made increase the figures to a little over 160,000. Other corrections may increase this a few hundred:—

Wards.	1850.	Vote in 1859.	1860.	Wards.	1850.	Vote in 1859.	1860.
1	6,849	1,039	7,871	11	19,334	1,549	12,731
2	8,213	831	4,158	12	.....	2,148	18,590
3	7,668	1,097	8,316	13	.....	862	7,537
4	10,957	1,063	10,339	14	.....	1,249	9,030
5	5,283	851	5,941	15	.....	1,619	11,954
6	9,628	1,056	7,796	16	.....	1,263	10,680
7	9,344	962	7,707	17	.....	481	4,040
8	14,422	1,685	13,292				
9	10,705	1,244	9,058	Total.	115,435	20,588	160,060
10	13,032	1,599	11,520				

CENSUS OF RHODE ISLAND.

The State census returns for the entire State of Rhode Island are as follows: In 1850, the population of the State was 147,549; in 1860, 173,869; an increase of 26,320, or a little short of eighteen per cent. There are but five counties in the State, the following being the recapitulation:—

Counties.	1820.	1830.	1840.	1850.	1860.
Providence	35,786	47,014	58,073	87,528	107,078
Newport	15,771	16,534	16,874	20,009	21,906
Washington	15,687	15,414	14,324	16,430	18,682
Kent	10,228	12,784	13,083	15,068	17,296
Bristol	5,687	5,466	6,476	8,514	8,907
Total	83,059	97,212	108,830	147,549	173,869

The city of Providence has increased from 41,513 to 49 914, being 8,401 in ten years.

BUSINESS POPULATION OF SAN FRANCISCO.

A new Directory of San Francisco has been published, and it contains some interesting statistics about the city. For instance, it states that there are 10,123 buildings in San Francisco, classified as follows :—

	One story.	Two stories.	Three stories.	Four stories.	Five stories.	Total.
Wood	3,714	4,733	152	4	.	8,603
Brick	243	925	253	37	3	1,461
Iron	8	30	6	3	.	47
Adobe	1	3	1	1	.	6
Stone	1	3	1	1	.	6
Total	3,967	5,694	413	46	3	10,123

In this table are included over 70 single buildings which vary in width from 50 to 140 feet.

The compiler of the Directory reports the number of business houses in July, 1860, and the number that have withdrawn from business within the last twelve months, which latter number includes about two-fifths of those in business here in the middle of last year. The table is as follows :—

	No. 1859.	Decl'd	Still in busin's.	busi's.	No. '60.
Assayers	8	2	6		8
Attorneys	271	37	234		288
Auctioneers	20	6	14		20
Bakeries	63	27	36		66
Bankers	16	1	15		17
Baths	14	4	10		15
Billiard-makers	9	3	6		9
Boarding-houses	286	168	118		248
Breweries	18	2	16		24
Brokers	150	61	89		179
Butchers, &c.	125	59	66		150
Cabinet-makers	21	15	6		22
Carpenters	75	63	12		120
Cigars	130	58	72		136
Clothing & tailors	266	99	157		276
Coal and wood	65	39	26		85
Dressmakers	56	34	22		62
Dry goods	117	34	83		121
Fruits	72	50	22		78
Furniture, &c.	70	22	48		54
Groceries	328	135	193		373
Gunsmiths	14	6	8		12
Hardware	32	4	28		37
Hair-dressers	60	44	16		95
Hatters	16	6	10		23
Liquors	760	341	419		800
Lumber	52	9	23		33
Milliners, &c.	43	27	16		43
Painters	50	35	15		65
Physicians	169	55	114		189
Printing-offices	13	..	13		17
Produce	70	40	30		48
Restaurants	66	34	32		84
Stoves & tinware	51	13	38		64
Upholsterers, &c.	30	10	20		30
Watchmakers, &c.	50	27	23		84
Total	3,626	1,570	2,056		3,985

CENSUS OF NEW HAMPSHIRE.

The first reliable census of New Hampshire after it ceased to be a province was taken in 1790, when the population was found to be 141,111 ; in 1800 it was 183,762 ; in 1810 it was 214,360. In the following table we give the results of each successive census from that time to the present :—

Counties.	1820.	1830.	1840.	1850.	1860.
Hillsborough	35,781	37,762	42,494	57,478	62,239
Rockingham	40,526	44,452	45,771	49,194	50,110
Grafton	32,989	38,691	42,311	42,348	42,278
Merrimac	32,743	34,619	36,253	40,337	41,460
Strafford	51,415	58,916	23,166	29,374	30,416
Cheshire	26,753	27,016	26,429	30,144	27,443
Carroll	. ...	.....	19,972	20,157	20,476
Sullivan	18,628	19,887	20,340	19,375	19,039
Belknap	....	.....	17,988	17,721	18,551
Coos	5,151	8,390	9,849	11,853	13,168
Total	244,161	269,533	284,574	317,976	326,175

From this table it will be seen that the gain in population between 1850 and 1860 has been much less than during any previous decade. The reader will notice that it is only one-fourth of the increase between 1840 and 1850. What is the cause of this? The increase of population throughout the country has been in a greater ratio during the latter than the former period. Of the two leading interests in our State, agriculture and manufactures, the former has been quite as profitable for the last ten years as for the ten years previous. We must therefore look to the condition of manufactures for a solution of this question. In the aggregate, manufacturing, though at this time encouraging, has been less profitable since 1850 than for the ten years previous. Added to this, there has been an impression among manufacturers that legislation and popular sentiment was less favorable to manufacturing interests in this State than in Maine and Massachusetts. Hence Lewiston, Biddeford, Lawrence, and other manufacturing towns in the above-named States, are growing more rapidly than the manufacturing towns in this State. Whatever reason there may have been for this belief, the recent legislation of this State gives evidence that it is entirely removed.

STATISTICS OF POPULATION OF BALTIMORE COUNTY.

Some interest being felt in relation to the progress of Baltimore County in population during the past decade, we present the following comparative tables, which, though deficient as to details, so far as the census of 1860 is concerned, are nevertheless sufficient to show with accuracy the relative proportion of white and colored inhabitants. The census of 1850 having been taken before the separation between the city and county went into effect, the tables presented the combined population of both; but as a table giving the population of Baltimore city was also introduced, by separating the statistics of population as given for the city from those of the city and county, we arrive at the following results:—

	White.	Free col.	Slaves.	Total.
Population of Baltimore County, including city .	174,853	29,075	6,718	210,646
Population of Baltimore City.....	140,666	25,442	2,946	169,054
Baltimore County....	34,187	3,633	3,772	41,592

It will be seen by the above that the total population of Baltimore County in 1850 was 41,592; in 1860 it is reported to be 54,460; increase in ten years, 12,868. In 1850 the number of slaves in Baltimore County was 3,772; in 1860, 3,131; decrease, 641.

MICHIGAN TOWNS—POPULATION.

The following are the returns for some of the towns of Michigan:—

	1850.	1860.		1850.	1860.
Pittsfield.....	1,232	1,304	Lodi	1,284	1,321
Salem.....	1,343	1,360	Manchester.....	1,274	1,712
Superior.....	1,127	1,344	Saline	1,631	1,917
Ypsilanti City	....	4,042	York.....	1,360	1,573
Ypsilanti town.....	3,052	1,869	Dexter	1,435	857
Ann Arbor City.....	....	4,491	Freedom.....	1,214	1,350
Ann Arbor village...	....	602	Lima.....	912	1,000
Ann Arbor town	4,870	1,443	Lyndon.....	901	823
Northfield.....	1,116	1,373	Scio.....	1,195	1,820
Webster	924	1,106	Sharon	869	1,003
Augusta.....	808	1,140	Sylvan	924	1,543
Bridgewater.....	1,148	1,290			

MERCANTILE MISCELLANIES.

NEW YORK CENTRAL PARK.

The third report of the board of commissioners of the Central Park has just been issued, which gives minute details of the work accomplished, and of that in progress at the present time. This is the first great enterprise of this nature in the United States, and we here make a record of its main features as a matter of general interest. During the current year the chief work will be the completion of the details of the lower park, and the construction of carriage roads and a foot walk in the upper park.

The principal features of the work that have been accomplished to this time, are the following :—

1st. The roads completed are as follows :—

Total Macadamized road finished			feet 7,283
" Telford	"	"	9,838
" gravel	"	"	200

Total, 3 miles 1,431 feet, (3¼ miles.)

2d. Roads commenced, graded, and in progress of grading : 26,751 feet, or 5 miles 351 feet.

3d. The total length of footpath, of divers width, completed, is 7 miles. The total length of the walk of the mall completed, is 1,450 feet. Total walks completed, 7 miles 1,450 feet.

There are seven ornamental bridges complete, or nearly complete. and five ornamental bridges in progress.

The number of trees and shrubs planted is as follows : Evergreen trees, 1,573 : evergreen shrubs, 1,864 ; deciduous trees, 1,259 ; deciduous shrubs, 9,137 ; creepers, 3,157 ; herbaceous plants, 375. Total, 17,365.

The total amount of drainage laid during 1859 is as follows : Below Eighty-sixth street, 7 070-1000 miles ; above Ninty-third street, 3 434 1000 miles.

By an act passed by the Legislature of 1858–59 it is provided that bequests may be made to the city of New York for the improvement and ornamentation of the Central Park, or for the establishment or maintenance of museums, zoological gardens, etc., upon such trusts and conditions as may be prescribed by the donors, and agreed to by the mayor, aldermen, and cominalty of the city of New York, and that such property shall be under the management, direction, and control of the board of commissioners of the Central Park. Under this provision the commission have granted permission to place within the park a monumental statue, in marble or bronze, of the late Commodore Perry—the gift of August Belmont, Esq. Observatories, museums of natural history, zoological and botanical gardens and galleries of art, find offers of substantial aid for their foundation. The board, however, recommend the propriety of leaving such institutions to the care of private hands, or of associations, under such judicious general regulations as might be prescribed by the board, having reference to the convenience and comfort of visitors, and to the integrity and faithfulness of their management.

The supply of water for lakes, fountains, and irrigation, will be inadequate until the new reservoir is brought into use, and additional facilities furnished for bringing to it the full volume of the aqueduct.

The board has had under consideration the subject of the expense of maintaining the park, and will endeavor to establish a system of license for franchises and privileges, that will yield a revenue to the park without in any respects obstructing or taxing its free enjoyment in all departments. Licenses for refreshment rooms for perambulators, or bath-chairs for invalids, to be allowed on the

walks, and for boats on the lake, may all be made to yield a revenue, and relieve the city of a part of the annual cost of maintaining the park. These conveniences are all to be conducted under stringent rules, to be provided by the board.

In relation to the zoological garden the report says that while such an institution could not justly be maintained by the public funds, it would be of great interest and instruction to the whole community. In the hands of a private association, it could well afford to pay a rent for a location on the park, which rent, together with all other privileges of this nature, should yield a revenue to be applied to the reduction of the annual expenses of maintaining the park.

Interesting statistics are given of the value of real estate in the wards contiguous to the park, for the past five years. They are as follows:—

Wards.	1855.	1856.	1857.
12th	$8,462,635	$8,149,360	$8,134,013
19th.....	9,382,886	8,041,183	8,558,624
22d.....	10,593,139	10,239,022	10,489,454
Total.....	$28,438,660	$26,429,565	$27,182,091

Wards.	1858.	1859.
12th.....	$8,476,790	$10,062,725
19th.....	10,971,775	12,621,894
22d	11,553,506	13,261,025
Total.....	$31,002,051	$35,945,644

Increased valuation on the three wards, 1856 to 1859, inclusive	$35,945,644
	26,429,565
Total.....	$9,516,079
The total cost of land taken for the park to January 1st, 1860	$5,406,193 74
Of this amount there was assessed upon contingent lands.....	1,661,385 00
Total cost of lands of the park.....	$3,744,798 74

To this is to be added the cost of the proposed addition to the park of the lands between 106th and 110th streets.

As nearly as can now be ascertained, 10,500 persons have had employment on the park at different times, since its commencement. Four thousand four hundred thirty-five were employed during last year. The average per day for the past year is 3,027. The largest number at one time was 3,666. The average number of general foremen, foremen, and assistant foremen, during the year is 146. Two hundred eighty-four men have been discharged for inefficiency; 286 for violation or neglect of rules; 477 have been temporarily suspended from work for neglect of rules, etc. One fatal accident occurred during the year, and one the year previous; both the results of imprudence of persons killed. These are believed to be the only fatal accidents that have occurred in the construction of the park. The force is paid in specie, regularly every fortnight, commencing on Thursday.

The following is a summary of the treasurer's account:—Total receipts from May 1st, 1857, to January 1st, 1860, $1,775,512 36; the expenditures from May 1, 1857, the date of the organization of the board, to January 1st, 1858, were $77,881 41; expenditures from January 1st, 1858, to January 1st, 1859, were $507,487 86; expenditures from January 1st, 1859, to January 1st, 1860, were $1,179,246 47; total expenditures from May 1st, 1857, to January 1st, 1860, $1,764,615 74; balance, January 1st, 1860, $10,896 62.

THE END OF DEBT.

In the fall of 1847, a young man came to this city in quest of employment. After weeks of unsuccessful search, he found himself without a prospect of work,

and considerably in debt for board. In despair, he made arrangements for disposing of his clothes by auction, in order to defray his debts, when a letter was sent him containing a twenty dollar bill, and directing him to apply for the situation of card-stripper, to the overseer of one of the corporations. The letter requested him to sign a note of hand for the amount loaned, and to place it in a certain unoccupied box in the post-office, where it would be called for by the lender. This young man did as was directed, and received the situation, the overseer stating that it had been secured for him at the earnest solicitation of a young lady. Years passed away, and all attempts to discover his creditor was unavailing. The young man prospered in business, and at length plighted his affections to an amiable young lady with whom he had become acquainted. On the day before their marriage, he received a letter requesting him to call at a certain place and pay the note of twenty dollars, with interest, which he had signed some years before. Anxious to settle an indebtedness which, from the mystery of the whole affair, had occasioned many hours of unhappiness, he hastened to the place indicated, and was ushered by the domestic into a parlor, where, to his astonishment, he discovered in the person of his unknown benefactor, the lady with whom, upon the next day, he was about to unite his earthly fortune. It was her first business transaction, and the partnership which followed bids fair to continue happily through life.

DIRECT SOUTHERN TRADE WITH EUROPE.

We have received the following interesting communication from a Committee of the City Council of Baltimore:—

CHAMBER OF THE CITY COUNCIL OF BALTIMORE, August 2, 1860.

At a regular meeting of the Committee of the City Council and merchants of Baltimore, for the establishing of a steam service between the Southern States and Europe, held on the 30th day of July, the following resolution was unanimously adopted:—

Resolved, That a Committee be appointed who shall enter into correspondence with the governors of all Southern States, and also the mayors of all Southern cities, asking what amount of bonds they will be willing to advance, or what amount of interest they will be willing to guaranty per annum, in order to establish a direct steam communication between the Chesapeake Bay and Europe.

In accordance with the resolution, we now transmit you herewith a copy of the same, and ask your sympathy and substantial aid to assist us in carrying through successfully the project now under contemplation. The Committee feel that, in the present position of our national affairs, no argument is necessary upon their part to impress upon you and your citizens the absolute necessity which should induce our Southern sister States to unite with us in effecting the organization proposed, or to attempt to show forth to them the vast benefits which must result therefrom. In our opinion, the time for action is now. We possess within ourselves all the elements of power and greatness; and if we fail to use them aright, the fault is ours, and will rest upon the generation in which we live. Although the resolution names only the connection between the Chesapeake Bay and Europe, still the Committee recognize the favorable position of Charleston in its relation to the cotton States, the West Indies, and the Gulf of Mexico, and appreciate the importance of such a combination with South Carolina as will bring the whole South, from Maryland to Texas, to accord upon a common policy for the establishment of this proposed Southern steamship line. The Committee are fully aware that you, in your official capacity, cannot pledge your State to lend its aid to this undertaking, yet we think a recommendation from you to your Legislature will be successfully carried through; and we there-

fore ask you to state what amount of aid you can consistently recommend your State to grant to this enterprise. In the permanent organization of the company, your State would, of course, be entitled to a representation. It is most probable that the ships could be easily obtained in Europe, with a guaranty of interest not to exceed six per cent per annum; but the Committee think that ships could be obtained upon much more favorable terms if the company were to purchase them with State bonds or cash, and that it would be most desirable to sail them under the American flag. We therefore propound to you the following questions:—What amount of interest would your State agree to guaranty annually for the support of this service? What amount of stock would it agree to subscribe for, payable in State bonds, in case the ships are purchased and owned by this company? The capital required to purchase and equip properly a line of steamers would be about $3,000.000. It may be urged against this enterprise, that the vessels will not pay, and we may be referred to lines that have previously been started, and which have been unsuccessful—to which we say that their want of success has been owing to the fact that they have been started without sufficient capital. They have been built and equipped by men that could take stock for their pay, and they have been furnished with stores by those who would give them credit, and who doubtless charged such prices as would under the circumstances remunerate them. Hence to avoid the difficulty which has ruined other similar enterprises, the Committee ask for a sufficient capital to place the company upon such a footing as will enable them to start and maintain the same in proper credit. All of which we most respectfully submit for your consideration; and hoping soon to receive a favorable reply from you, we are, respectfully,

FRED. FICKLEY, Jr., Chairman.
G. O. GORTER.
ADEXANDER PENN.
C. SIDNEY NORRIS.
WM. McPHAIL.

SAILORS—WHAT THEY ARE, AND WHAT THEY SHOULD BE.

The New York *Shipping List* has the following remarks upon the condition and supply of seamen:—

Inasmuch as a considerable degree of interest is being manifested just now in everything which pertains to the shipping interest, we deem it a fitting time, as well as an act of duty, to speak a word for "poor Jack," and to revert to the endeavors which are put forth from time to time, having in view the improvement of the seamen employed in our merchant service, both as regards their own personal comfort, and the enhancement of their usefulness to their employers, as well as for the purpose of obtaining for our mercantile marine a character for respectability, to which, in its present condition, it can have very few pretensions. The great question—"what produces a scarcity of *good seamen*," has at length reached that point, we think, which renders its satisfactory solution a comparatively simple task. It is an indubitable fact, that the *chief cause* is to be found in the flagrant abuses of the forecastle, and but little can be done to ameliorate the condition of the sailor which does not aim directly at a revolution in this department. Another of the main causes is the sailor boarding-house agency, which has proved one of the most formidable obstacles in the way of any plans for improvement heretofore put forth, and which are come to be considered almost insurmountable. Until both of these monstrosities can be successfully overcome, all efforts to improve the condition of the seafaring man must prove utterly futile, and no permanent good can reasonably be expected to result from them. The laborer, the mechanic, and, in fact, the worker in all departments of industrial trade, has advanced in civilization and refinement, and has now claim to a wide influence upon the progress of society. But in this advancement, the sailor has not participated, except, perhaps, to a very limited extent. To be sure, his condition is comparatively elevated from the lowest standard of years agone, his salary is more remunerative, and an enlightened liberality has, in some few cases, made provision for his better accommodation

and treatment on shipboard. The condition of our merchant seamen is far from being what it should be, however, and the philanthropic, the religiously and charitably disposed are periodically importuned to ameliorate their miserable condition, by relieving them from the abuses of the forecastle when at sea, and by breaking up the iniquitous sailor boarding-house system, through which agency they are defrauded of their hard-earned money when in port. Any one at all conversant with seafaring life in all its varied ramifications, must be cognizant of the fact that any and every scheme having this object in view, is strenuously opposed by these land sharks, who infest our wharves, and all of whom use the most herculean efforts to defeat every such endeavor, and frustrate every effort which may be put forth in this direction, and which may stand never so poor a chance of effecting the desired result. Could a greater spirit of enterprise be infused into some of these spasmodic endeavors, seconded by a kindred spirit in the mercantile community, they might be productive of much good; but as it is, the few well-meaning people who have heretofore taken the lead, have proved themselves utterly inadequate to cope with their formidable opponents, and accordingly little or no faith is reposed in their oft-reiterated promises to effect a revolution. To insure the success of such an undertaking, our merchants must first be induced to abrogate their system of retrenchment—exercised whenever they have opportunity—use their influence to reform the abuses of the forecastle, insure kind treatment, pay good wages, and thus create an inducement for respectable young men to follow the sea as a means of livelihood. Sailors, as a class, are as susceptible of gratitude and a reciprocation of kindly feeling as any class of men in the world, but they are too generally looked upon as a lower order of human beings and there is often a feeling of antagonism between them and their officers, created, in many instances, it is evident, by the harsh treatment of the latter. The most feasible form for a permanent reform, however, and, in fact, the only practical or efficient one, it seems to us, is the establishment, by an act of Congress, of an apprentice system, rendering it obligatory for ships to carry as apprentices a certain number of youth for a given term of years. This will insure to the owners and masters of ships good, well-known seamen, whose characters they themselves have developed, and to the seamen themselves a good nautical education, and a respect from their superiors, which this class of men have hitherto failed to command.

FACTS AND FIGURES.

Lead and zinc are greatly expanded by heat—the latter metal expands nearly twice-and-a-half more than wrought iron under equal temperatures.

The ordinary burden of a camel is 750 pounds. With this load he will travel at about two miles an hour for from 15 to 18 hours per day, continuing this service for weeks, with only one pound of food and a pint of water daily.

James Watt, in a letter written in 1770, described and sketched a "spiral oar" or screw propeller.

The feed water of boilers acquires a galvanic effect in passing through the copper tubes of surface condensers.

Forests attract rain; a country stripped of its forests is likely to suffer from drouth.

A canal from the Nile to the Red Sea was once opened and kept open for many years.

The greatest range which can be obtained from a gun is when the piece is inclined at an angle of 45 degrees.

It is found that the prairie-stone, existing in such large quantities just back of Chicago, will make gas as well and as freely as the best coal, yield 50 per cent of pure saltpeter, and a residue be left of as good lime as can be found anywhere.

ANECDOTE OF STEPHEN GIRARD.

Old GIRARD had a favorite clerk, and he always said "he intended to do well by BEN. LIPPINCOTT." So when BEN. got to be twenty-one he expected to hear the governor say something of his future prospects, and perhaps lend a helping hand in starting him in the world. But the old fox carefully avoided the subject. BEN. mustered courage. "I suppose I am free, sir," said he, "and I thought I would say something to you as to my course; what do you think I had better do?" "Yes, yes, I know you are," said the old millionaire, "and my advice is that you go and learn the cooper's trade." This application of ice nearly froze BEN. out, but recovering equilibrium, he said if Mr. GIRARD was in earnest he would do so. "I am in earnest;" and BEN. sought the best cooper in Spring Garden, became an apprentice, and in due time could make as good a barrel as the best. He announced to old STEPHEN that he had graduated and was ready to set up business. The old man seemed gratified, and immediately ordered three of the best barrels he could turn out. BEN. did his prettiest, and wheeled them up to the old man's counting-room. Old GIRARD pronounced them first rate, and demanded the price. "One dollar," said BEN., "is now as low as I can live by." "Cheap enough—make out your bill."

The bill was made out and old STEVE settled it with a check for $20,000, which he accompanied with this little moral to the story:—

"There, take that and invest it in the best possible manner, and if you are unfortunate and lose it, you have a good trade to fall back upon, which will afford you a good living."

We should like to see all the old solid fellows trying that experiment. It might spoil a barrel or two but it wouldn't spoil the boys.

LONDON TOBACCO TRADE AND CONSUMPTION.

There are 12 city brokers in London, expressly devoted to tobacco sales; 90 manufacturers, 1,569 tobacco shops, 7,380 workmen engaged in the different branches of the business, and no less than 252,043 tobacco shops in the United Kingdom. And if we turn to the continent, the consumption and expenditure assume proportions perfectly gigantic. In France much more is consumed, in proportion to the population, than in England. The emperor clears 100,000,000 francs annually by the government monopoly. In the city of Hamburg 40.000 cigars are consumed daily, although the population is not much over 150,000; 10,000 persons, many of them women and children, are engaged in their manufacture; 150,000,000 cigars are supplied annually; a printing press is entirely occupied in printing labels for the boxes of cigars, etc., and the business employs £4,000,000 or $20,000,000. In Denmark the annual consumption reaches the enormous average of 70 ounces per head of the whole population; and in Belgium even more—to 73 ounces, or 3.6 lbs. per head. It is calculated that the entire world of smokers, snuffers, and chewers consume 2,000,000 tons of tobacco annually, or 4,480,000,000 lbs. weight—as much in tonnage as the corn consumed by 10,000,000 Englishmen, and actually at a cost sufficient to pay for all the bread corn in Great Britain. Five-and-a-half millions of acres are occupied in its growth, the produce of which, at two pence per pound, yields £37,000,000 sterling, or $185,000,000.

THE BOOK TRADE.

1.—*Izaak Walton's Lives.* The Lives of Dr. John Donne, Sir Henry Wotton, Richard Hooker, George Herbert, and Dr. Robert Sanderson. By IZAAK WALTON, with some account of the author and his writings. By THOMAS ZOUCH, D.D. New edition with illustrated notes, complete in one volume. 12mo., pp. 386. Boston: Crosby, Nichols, Lee & Co.

The life of Izaak Walton, though little diversified with events, and exhibiting none of those attributes which are wont to commemorate us in the estimation of our fellow creatures, such as brilliant achievements, the pride of superfluous wealth, or the splendor of high descent, has always received more or less attention. His was one of those minds which may be said to gather "sermons from stones, wisdom from running brooks, and good from everything." The complacency of his life, free from the pursuit of gain, his Christian virtues, the encouragement given by him to the more innocent recreations, have endeared his name to all. Indeed, though near 200 years have elapsed since he left the stage of existence, in the skillful management of the angle, he is believed to have borne away the prize from all his contemporaries. All lovers of that "gentle art" still swear by him, and the instructions contained in his "Complete Angler" are to this day looked upon as authority by all lovers of the gentle art, as comprising the clearest and fullest instructions for the attainment of a thorough proficiency in angling. But Izaak Walton possessed a mind enriched by study and contemplation as well, and contained in this volume will be found several biographies, denominated by him as simply good men, such as Dr. Donne the eloquent and effective preacher, Life of Sir Henry Wotton, Richard Hooker, George Herbert, Dr. Robert Sanderson, &c., &c. Aside from the fact, that the examples of such men, strictly and faithfully discharging their professional duties, must obviously tend to invigorate our own efforts to excel in moral worth, the book will be found interesting from the insight it conveys of English society during the troublesome times of the Covenanters in 1643. It is gotten up in the English style, with clear type and tinted paper, and reflects all credit upon its enterprising publishers.

2.—*The Works of Francis Bacon,* Baron of Verulam, Viscount St. Albans, and Lord High Chancellor of England. Collected and edited by JAMES SPEDDING, M. A., late Fellow of Trinity College, Cambridge. Vol. xi., being vol. i. of the literary and professional works, "History of the Reign of King Henry VII. 12mo., pp. 461. Boston: Brown & Taggard; also for sale by E. French, 53 Cedar street, N. Y.

Lord BACON has always been acknowledged as a man possessed of the highest intellect of his time, and his masterly essays, in which his peculiar genius is readily most conspicuous, have been handed down as models of their kind. As a historian, however, he has been much criticised, from his too frequent disposition to taint his works with lukewarm censure of falsehood and extortion, and in handling this subject he has been accused of having simply written the life of King Henry to gratify James I., and in his efforts to do so, has both distorted character and events. But if the object of history, as BACON has it, is to reproduce such an image of the past that the actors shall seem to live, and the events to pass before our eyes anew, at the same time that it leaves the conclusions thereon to the liberty and faculty of every man's judgment, then we should say he has succeeded so well that he has left later historians but little to do. With but slight variations the portraits of Henry have ever been the same—the same cold reserve, suspicion, avarice, parsimony, party spirit, partiality in the administration of justice, yet possessed of sagacity, industry, and courage, who for twenty-three years really governed England by his own wit and his

own will. Contained in the volume is also a short memorial on the memory of Elizabeth, which traces on a few brief pages, as well, the principle elements comprising the character of that most singular woman. But if there is any thing to be praised more than another, it is the really beautiful style in which the publishers, Messrs. Brown & Taggard, are bringing out this series of BACON'S works, on tinted paper, new type, etc. Book fanciers, we imagine, will have to go far before they meet with volumes displaying more taste in their getting up than these.

3.—*Wilkins Wylder; or the Successful Man.* By STEPHEN F. MILLER, author of "The Bench and Bar of Georgia." 12mo., pp. 420. Philadelphia: J. B. Lippincott & Co.

This will be considered by many a rather tame tale, from the lack of bloody plots, &c., with which authors usually choose to illustrate stories of this kind. It is evident the author in this case considered that such personages as Irving, Scott, Cooper, and other writers of fiction, have a large account to settle for turning the minds of the young into false channels, by throwing silken cables over dark caverns, and investing life with colors which inspire a momentary pleasure, through the imagination, never to be realized in daily life. Whatever the story may lack in these respects, is amply made up by the wholesome moral lessons it contains, relative to the duties of man and his social nature. Included in the volume is also a second story called "Mind and Matter," which we consider decidedly the best of the two—teaching conversely that nobility of mind may exist after fortune has departed, and that the instinct of friendship can do no good under false pretences. On the whole it will be found a capital story—one we cannot go amiss in placing in the family library.

4.—*Critical and Miscellaneous Essays and Poems.* By T. BABINGTON MACAULAY. New and revised edition. 12mo., pp. 358. New York: D. Appleton & Co.

The collection embraced in this volume of Macaulay's writings, comprehends some of the earliest and latest works he composed, such as "Criticisms on the Principal Italian Writers," "Account of the Great Lawsuit between the Parishes of St. Dennis and St. George in the Water," "Fragments of a Roman Tale," &c. &c., all taken from Knight's *Quarterly Magazine* and the *Edinburgh Review*, and embracing the long space of time intervening between 1812 and 1850, with the exception of his sketch of the life of William Pitt, written for the *Encyclopedia Britannica* during 1859, and among the last if not the closing up of his literary labors. Included in the volume are also a number of poems, some of which have already appeared in print, while others have not, the first two having been composed during the author's childhood. The volume, like most others issued from the house of Messrs. D. Appleton & Co., exhibits much taste in the getting up, and will prove a valuable acquisition to the private library.

5.—*Primary History of the United States*, made Easy and Interesting for Beginners. By G. P. QUACKENBOS, A. M., Principal of the "Collegiate School," N. Y. New York: D. Appleton & Co.

The wants of primary schools have been particularly consulted in the preparation of this little book. The author here endeavors to present the history of our country so clearly that it may be studied intelligibly by the merest youth. Knowing the fondness of the young for stories, truthful anecdotes have been interspersed throughout. And to please the eye, as well as to awaken thought, numerous engravings, designed with strict regard to historic truth, have been introduced. The form of continuous narrative has been adopted as preferable for reading purposes, but questions bringing out every leading fact are presented at the end of each lesson, which may be used by the learner in preparing himself, and by the teacher at recitation.

HUNT'S

MERCHANTS' MAGAZINE.

Established July, 1839, by Freeman Hunt.

VOLUME XLIII. DECEMBER, 1860. NUMBER VI

CONTENTS OF NO. VI., VOL. XLIII.

ARTICLES.

ART. PAGE

I. REVIEW, HISTORICAL AND CRITICAL, OF THE DIFFERENT SYSTEMS OF SOCIAL PHILOSOPHY; OR, INTRODUCTION TO A MORE COMPREHENSIVE SYSTEM. PART X. The Second Class of Sociological Ideas appertaining to the Political School critically examined—Their greater prevalence in ancient than in modern times—Their superiority and inferiority to those of the First Class respectively pointed out, the aggregate result being decidedly in favor of those of the First Class, already considered—The only noteworthy illustration of this Second Class of Sociological Ideas, in the present age, adjudged to be the not yet wholly abandoned policy of the Union of Church and State 659

II. STADE DUTIES, AND DUES LEVIED BY THE RUSSIA COMPANY. Geographical position of Stade—Origin of Stade Duties lost in obscurity—History of the Stade Tax—The Tolls became the Elector of Hanover's property—Collection Suspended—Renewed by George III., again Supended, and Revived in 1814—Treaty of Vienna—Convention at Dresden—Commission—Unsatisfactory termination of labors—Stade Tariff—Contrary to the Principles of the Treaty of Vienna—Agitation in England, 1844—A Convention agreed to—The Treaty highly objectionable, and total abolition required—Taxing Powers of the Russia Company—Duties Levied—How Applied—Expenditure in 1852—Defence of the Company wholly Untenable—Arguments Answered—Total Abrogation of Charter Expedient 671

III. MARITIME RELATIONS. By W. S. LINDSAY, M. P., of England 682

IV. VALUATION OF LIFE INSURANCE POLICIES. No. VIII. By Prof. C. F. MCCAY, of Georgia 692

V. TRADE WINDS—EVAPORATION IN THEIR CIRCUIT. The Trade Winds—Evaporation in their Circuit—High Ridges cause the Condensation of the Clouds, and thus the Rivers of North and South America—The Appalachian Ridge the Dividing Line of Water Courses Draining into the Atlantic. By JOSEPH E. BLOOMFIELD, Esq., of New York 697

VI. OUR TRADE WITH THE WEST. By J. M. SANDERSON, Esq 701

VII. CALIFORNIA—ITS POLITICAL ECONOMY. Suspension of the Banks in 1857—Their stronghold on the People—No salutary Reform instituted by the experience of 1857—Banks should Loan Money, not Credit—Every Dollar of Bankruptcy in the Currency makes Ten Dollars of Bankruptcies in the Body Politic—Gold and Silver are the only proper Basis for Banking—Liabilities of the Federal Government to California, $250,000,000. By JOHN A. FERRIS, Esq., of California 705

JOURNAL OF MERCANTILE LAW.

Liabilities of Express Companies 710

COMMERCIAL CHRONICLE AND REVIEW.

Foreign Trade—Crops Abroad—Wants of England—Shipment of Breadstuffs—Large Exports of New York—Political Disquiet—Fall in Stocks—Aggregate Depreciation—United States Stocks—New Loan—Capital Developed—Railroad Receipts—Miles in Operation—Cost—Receipts—The Future—Rates of Money—Exchanges at the South—Prices of Bills—Specie Movement—Assay-office—Payments in Bars—Increased Coinage—Circulation of Coin—Cotton Sales—Southern Banks—Exchange at New York—Food and Raw Material—Northern Manufacturers—Cheap Cotton—Dear Food—Increase of Manufactures—Bales Taken—European Demand—England's Proportion—Northern Purchases—England's Harvests often Influence 713–722

PAGE

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

St. Louis—Debt and Finances 722
St. Joseph in 1850 and in 1860 723
City Weekly Bank Returns—Banks of New York, Boston, Philadelphia, New Orleans, Pittsburg, St. Louis, Providence 724
The Clearing-house 728
Coins of Japan 729
Banks in Portland.—New York State Valuation and Taxes 731
New York City Quarterly Bank Returns 732
Banks of New Hampshire.—Debt of Tennessee 734

STATISTICS OF TRADE AND COMMERCE.

Grain Ports of the Lakes 735
West India Exports.—The Tobacco Trade of Virginia 736
Production and Consumption of Cotton.—Texas Cotton 740
Cotton Crop.—Guano Export from the Chincha Islands 741
Commerce of the Port of Boston and Charlestown 741
Entry and Delivery of Articles belonging to Foreign Ministers 741

COMMERCIAL REGULATIONS.

Treaty with Chile 742
Citron 743
Saddlery—Polished Bits 744

NAUTICAL INTELLIGENCE.

New Lighthouses on the West Coast of Scotland 744
Ireland—East Coast 745
Fixed Light at Rio Grande do Norte, Brazil 746

JOURNAL OF INSURANCE.

Fire Insurance in New York 746
Marine Losses for 1860 747
Life Assurance in Jamaica.—Maine Insurance Laws 748

POSTAL DEPARTMENT.

Postage to Brazil by the French Mail.—Closing of the Post-office Mails 749
Stamps and Envelops.—Newspaper Enterprise 750

JOURNAL OF MINING, MANUFACTURES, AND ART.

Lake Superior Iron 751
James River (Va.) Coal Trade 752
Perfumery 753
How Railroad Iron is Made 754
Cotton Manufactures 755
Gas and Oil.—Coal—Its Mechanical Powers.—Making Cloth Fire Proof 756

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

Railway Enterprise in Kansas 757
Minnesota Railway System 758
Baltimore and Ohio Railroad.—French Railways 759
New York State Canals 760
State Canals and their Management 761
Canal Commerce 762

STATISTICS OF AGRICULTURE, &c.

Crops without Manure 763
The Lactometer 764

STATISTICS OF POPULATION, &c.

Population of Ohio 766
Population of Michigan 767
Census of Brooklyn and Kings County.—Population of Kansas.—Population of Louisville, Ky. 768
Occupations of Emigrants.—Population of the City of St. Anthony, Minnesota 769

MERCANTILE MISCELLANIES.

Obituary—Death of Captain Silas Holmes 770
Commerce and Trade in Olden Time 771
Boston in 1860 772
Increase of American Commerce 774

THE BOOK TRADE.

Notices of new Books or new Editions 775–776

HUNT'S

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

DECEMBER, 1860.

Art. I.—REVIEW, HISTORICAL AND CRITICAL, OF THE DIFFERENT SYSTEMS OF SOCIAL PHILOSOPHY:*

OR, INTRODUCTION TO A MORE COMPREHENSIVE SYSTEM.

PART X.

THE SECOND CLASS OF SOCIOLOGICAL IDEAS APPERTAINING TO THE POLITICAL SCHOOL CRITICALLY EXAMINED—THEIR GREATER PREVALENCE IN ANCIENT THAN IN MODERN TIMES—THEIR SUPERIORITY AND INFERIORITY TO THOSE OF THE FIRST CLASS RESPECTIVELY POINTED OUT, THE AGGREGATE RESULT BEING DECIDEDLY IN FAVOR OF THOSE OF THE FIRST CLASS, ALREADY CONSIDERED—THE ONLY NOTEWORTHY ILLUSTRATION OF THIS SECOND CLASS OF SOCIOLOGICAL IDEAS, IN THE PRESENT AGE, ADJUDGED TO BE THE NOT YET WHOLLY ABANDONED POLICY OF THE UNION OF CHURCH AND STATE.

HAVING had occasion, in the foregoing article, while considering the first class of the political school of sociological ideas, to define, with precision, the legitimate function or end of government, we shall have the less occasion, in this, which is designed to treat of the second class of those ideas, to be detained with the consideration of incidental questions. By the second class of sociological ideas, belonging to the political school, as already defined, it is intended to designate *those which aim at improving the social condition, to a greater extent, and somewhat more fundamentally, than the legitimate function of government can ever improve it, and to an extent which is possible, indeed, though not very likely to be attained, and which, as a means of attaining this end, aim at a political system, or organism, which transcends the legitimate function of government.* Having already defined the legitimate function, or end, of government to be, simply, *the security of mankind against molestation or interference*, we shall have the less difficulty in determining what particular sociological theories or ideas belong to the class now under consideration.

* Entered according to an act of Congress, in the year 1859, by GEO. W. & JNO. A. WOOD, in the Clerk's Office of the District Court of the United States, for the southern district of New York.

It will be found, in accordance with what might be reasonably anticipated, that ideas of this class were much more prevalent in ancient than in modern times, while those of the first class have been much more prevalent in modern than they were in ancient times. Ideas of the second class, which is the more fundamentally erroneous one, belong naturally to the earlier and more imperfectly developed conditions of social science. As in the earlier and ruder stages of human industry we find a variety of occupations blended in the pursuits of the same individual, while it is only as society advances in civilization that the proper division of labor takes place, so in the earlier and ruder stages of social science we find a variety of functions blended, or attempted to be blended, in the operations of government or the political organism of society, while it is only as social science advances towards more correct ideas that all extraneous and illegitimate functions are eliminated from the legitimate and proper function of government, and that this legitimate and proper function comes to be either practically developed or theoretically recognized.

Not only were ideas of the class in question much more prevalent in ancient than in modern times, but they were almost universally prevalent in those times. Indeed, one of the most distinguishing characteristics of the sociological ideas of the earlier nations was, that they aimed at accomplishing too much for society through the instrumentality of government, or political authority—that they aimed at a political organism which transcends the legitimate function of government. It is among the earlier nations, accordingly, and among the Greeks and Romans, more especially, of course, that we find this class of ideas most clearly as well as copiously illustrated. Whether we regard the speculative philosophy of the Greeks and Romans, in regard to society, or their actual political institutions, we shall find ideas of the class in question predominant. The political discourses of both Plato and Aristotle, which have been already critically considered by us, while reviewing Grecian Sociology,* though not with any special reference to their illustations of the class of ideas now under particular consideration, distinctly and forcibly illustrate this class of ideas.

The whole theory of Plato's Republic may, indeed, be defined as that of a State in which a select class of State guardians, or rulers, should have entire jurisdiction over all the rest of the community, and have them as completely under their control as, in the familiar relations of life, a guardian has his ward, or a father his child. In short, according to the crude and imperfectly developed sociological ideas of this renowned philosopher of antiquity, the government or political authority of a State should have as extensive and unlimited control over the different individuals composing it, as a parent has over his child, a preceptor over his pupil, a master over his servant, and should combine, in itself, the various functions of parent, preceptor, master, and even priest, as well as legitimate and proper State ruler. The government of a State, according to Plato, should not only give its attention to the great paramount object of maintaining stability and order in the State, but it should act as custodian of the morals of the citizens, director of their industrial pursuits, and supervisor of their domestic relations. The State, upon his plan, was to prescribe what religious opinions should be promulgated in the community,

* See No. iv. of this Review in *Merchants' Magazine*, for January, 1860, or Vol. xlii., No. 1.

what branches of knowledge were to be cultivated in the schools, what occupations the different citizens were to engage in; nay, what kind of songs and musical tunes were to be introduced; and, invading even the sanctity of the domestic relations, it was to assume direction of the matrimonial affairs of the community, and to decide who should marry, and whom, and when.

It should be apparent that these ideas of Plato illustrate, distinctly and forcibly, the class of ideas now under particular consideration. For, while they aim at nothing more than is attainable by mankind, and nothing more than it is highly important should be attended to, nay, than is indispensable to be attended to, in order that a very highly developed condition of society should exist, they injudiciously aim at the attainment of their various ends through the instrumentality of government, whereas they should be left to the individual activity of the citizen, either acting in his own proper capacity, simply, or in the various capacities of parent, guardian, master, preceptor, priest, or author, whether of works strictly scientific, or of a more miscellaneous and merely literary character. In so far as the ideas developed by Plato, in his Republic, aim at transcendental and impracticable ends, such as the investing his warrior or guardian class with qualities which would assimilate them to Gods, rather than to men, it should be superfluous to remark that they belong to the third class of ideas appertaining to the political school, and do not properly illustrate the remarks here made concerning those of the second class.

It should be apparent, moreover, that this second class of sociological ideas, as illustrated by those of Plato, is superior to the first class, in one important respect—in respect to one of the only two important points in which the two classes differ from each other—*that it recognizes the importance of far more fundamental influences than those of the mere legitimate function of government.*

The theory or general scope of the first class of ideas would appear to be this: that all which it is of any great importance for the social philosopher to aim at is a government capable of completely discharging the proper duties or legitimate function of government—a government which completely protects all the individual rights and interests of the community—*a government, in short, which*, according to the views of Calhoun,* the most clear spoken of all the philosophers of that class, *at the same time that it is invested with the full command of the resources of the community, for the purpose of protecting it, is so arranged, by its own interior structure, or organism, as to resist its inherent tendencies to abuse power.*

The social philosophers of the second class, of whom Plato was one of the most strongly marked and illustrious exponents, very justly assert, on the contrary, that this is very far from being all that demands the serious and particular attention of the social philosopher—that the moral character and industrial pursuits of the community, their habits and occupations, their theological notions and religious beliefs, as well as their mental culture, demand attention—that particular attention should be paid to the appropriate occupations of the citizens, to see that no one

* See Calhoun's Disquisition on Government, before critically noticed in article *nine* of this Review.

gets out of his own proper sphere; to see that the brazier does not undertake to make boots, and above all, that the maker of boots does not undertake to become the maker of laws, so that *each person in the community may perform his own legitimate work and proper function*, which Plato regarded as the grand end and true realization of justice—that moreover, lastly, though not leastly, if not indeed primarily and of paramount importance, the strictest attention should be paid to the laws of genealogy and population; to the former, by means of judicious crosses, with a view to the production of the noblest offspring; to the latter, by means of encouraging or restraining marriages, with a view to maintaining a just equilibrium of numbers in the community, so that the population may neither be too small nor too large.

In this, the philosophers of the second class have decidedly the advantage over those of the first, that they distinctly recognize the importance of attention to all these influences. But they commit the grand error of aiming to make government, or the political authority of society, the instrumentality for seeking to actualize these influences. The philosophers of the first class, on the other hand, have this distinguished merit, which certainly cannot be claimed for those of the second, that, profiting by the accumulated wisdom and experience of ages, they have discerned the importance of restricting the operations of government; of confining it to the single purpose of protecting the citizen in his rights, or securing him from interference—that they have learned from the severe teachings of experience that such is the proneness of mankind in general, and political rulers in particular, to abuse power, that, however tolerable a government of such miscellaneous powers might be in a ruder and simpler state of society, in a highly developed state of civilization incalculable abuses would be inflicted on society by a government of such vast, heterogeneous, and unlimited powers as that recommended by Plato and other philosophers of antiquity. If social philosophers of the first class have been less discerning than those of the second class, to see the more fundamental causes of social prosperity, they have certainly been far less injudicious in their methods for seeking to improve society—they have not proposed such a mode of treating the social ills of mankind as would introduce a new and potent special cause of mischief, in a wide sweep of political misrule, and would entail far more evil than good on mankind. In short, the social philosophers of the first class have this great advantage over those of the second, that what they aim to do at all they aim at wisely and well, whereas those of the second class, while they aim at accomplishing a great deal more, mistake the true method of accomplishing anything.

The ideas of Aristotle, as a political and social philosopher, which were much more practical, and of far more actual value than those of Plato, were also strongly characterized by a proneness to aim at accomplishing too much for society through the instrumentality of government, and serve clearly to illustrate the class of sociological ideas now under particular consideration. He, like Plato, had a tolerably deep insight into the more fundamental causes of social prosperity, and, like him, he had too imperfect an insight into the philosophy of politics to discern the evil of attempting to render these causes operative through the instrumentality of political authority.

Accordingly we find him, in his principal treatise on ethics, declaring

that "the supreme good or end of all we do would appear to be the end of that which is especially the chief and master science, and this seems to be the political science; for it directs what sciences States ought to cultivate, what individuals should learn, and how far they should pursue them."*

Again we find him, in the same treatise, while maintaining that it is by performing virtuous actions that we become virtuous, declaring, "moreover, that which happens in all States bears testimony to this; for legislators by giving their citizens good habits make them good; and this is the intention of every lawgiver, and all that do not do it well fail; and this makes the difference between States, whether they be good or bad."†

Thus, it would appear, that, according to the notions of this renowned Grecian sage, the grand end of government is, not that which modern political science appears to have come, at last, to regard it, simply to protect mankind from all interference, to insure their being let alone, so that each individual may, as far as possible, seek his own happiness in his own way—*but, forsooth, to go in quest of the philosopher's stone for mankind!*—to seek to actualize, for mankind, the grand end of their being, that which the Grecian philosophers seem to have been constantly aiming at in all their speculations, the *To agathon*, or, as the Romans styled it, the *summum bonum* of human life—that exalted sentimentality or spirituality of character, the aspiration after which, in modern times, is resigned almost entirely to the religious meditations of individuals, or a purely contemplative philosophy. In short, the grand end of government, according to Aristotle, is *to make men virtuous*. For, after stating that the end of political science is the *supreme good*, or end of all we do, he proceeds to inquire what this is, and concludes that it is "an energy of the soul according to virtue," or, in other words, virtuous energy.‡

This is truly a noble end, which, according to the Grecian sage, government should propose to itself—*to make men virtuous!* But, alas for mankind, when they have to go to their government, their State rulers, to learn virtue! Woe betide the people who are not more virtuous than their politicians. Ill bides the world when the waters of the great popular deep are not purer than the stagnant and putrescant pools of political corruption, into which they are translated by the evaporating and condensing meteorological forces of the political world.

It appears abundantly clear from the two quotations just made from Aristotle, and more particularly the latter of them, that he considered it the business of legislators, or State governors, to give to their citizens good habits, and thereby make them good, when he should have discerned, that it is rather the business of the citizens of States to give their legislators good habits, and thereby insure their being good, thus reversing the true and philosophical order of the action and reaction of society and government upon each other. But this is entirely in accordance with the general propensity of Aristotle, in common with most of the earlier social philosophers, to subordinate the individual to the State, instead of the State to the individual, which we have already treated, at some length, while reviewing Grecian Sociology,§ and also while review-

* See Nichomachian Ethics, as translated by R. W. Browne.
† See same work, book xi, ch. i.
‡ See Nichomachian Ethics, book i., chapter 8.
§ See number iv. of this review, in January number of *Merchants' Magazine*, for 1860.

ing Chinese Sociology, and contrasting this superficial idea of this renowned sage of European antiquity, with the converse idea of the great Chinese sage, Confucius, who seems to have had the sagacity clearly to discern that government must take its complexion from society, or the individuals composing it;* that, so far from the virtue of the people proceeding from that of their government, it is only from the proper government of *oneself* that the proper government of a family can proceed, and, from the proper government of families, that of a State.

But this erroneous idea of Aristotle is not referred to here, for the purpose of illustrating his superficialness and general want of fundamental accuracy, as a social philosopher, (which have been already sufficiently dwelt upon,) but only as an illustration of that class of sociological ideas, which, while they aim at highly important fundamental results, as, for example, the modifying and improving of the character of mankind, with a view to the improvement of society, yet commit the great error of seeking to make the political authority of States the instrumentality for accomplishing such results.

If the two most eminent philosophers of Greece entertained such ideas, concerning the principles of society, we may reasonably infer that like ideas prevailed, extensively, in the actual framework of Grecian society. Such was undoubtedly the case, and nowhere do we find such ideas so clearly and forcibly illustrated, at least among the Greeks, as in that most remarkable of all the social fabrics of Greece, the Spartan State. The grand aim of the renowned Spartan lawgiver was, evidently, not only to make the citizens of his State virtuous, but to make them so by the force of political authority, of State laws. The citizen of Sparta was almost completely under the dominion and surveillance of the State, his very dinner having to be eaten under the direction of severe police regulations. The individual was there almost completely merged in the State. In short, Sparta was a very near approximation to a mere communist society, the essential principle of which is the complete *merger* of the individual in the State, or community; the nearest approximation to it, indeed, on any large scale, to be found in human history, except, perhaps, the State of the Incas of Peru, before particularly noticed, in this review,† while reviewing Inca Sociology.

And if the much eulogized prosperity of Sparta should be urged in opposition to the view here presented, that such extensive interference by government with the individual activity and freedom of the citizen is unwise and improper, it may be sufficient here to reply, that while such interference may have worked well in so rude and simple a state of society as prevailed in Sparta, so long as the government established by Lycurgus really prevailed, it does not follow that it would work well in a more civilized and highly organized society, with its far greater complexity and variety of interests. Nay, moreover, it does not follow, because a rude and semi-barbarous people, like the Spartans, and living in the midst of so unsettled a state of society as generally prevailed in Greece during that age, required so rigid a government, in order to insure the legitimate end of government, (stability and order, with the consequent general security of person and property,) that, therefore, a more civilized people, in a more generally civilized age, should be expected to submit

* See number iii. of this review, in December number of *Merchants' Magazine* for 1859.
† See number iii. of this review, in December number of *Merchants' Magazine* for 1859.

to such a government, even if it were possible to make it work well, and guard it from that vast abuse and corruption to which political authority is always liable, but more especially in highly advanced stages of society.

The Romans, flourishing in the same age with the Grecians, though in a later period of the age, entertaining the same general ideas, and indeed deriving many of their ideas, especially in respect to government, directly from the Grecians, as might be reasonably inferred, exhibited, though not to so great an extent, the like disposition to seek to accomplish too much for society through the instrumentality of political authority. This characteristic of Roman Sociology, like many others, is much more manifest in their actual institutions than in any theoretical or scientific treatises which they have bequeathed to posterity, since, as we have before had occasion to remark,* they were not a very philosophical people, and were much more distinguished in practice than in theory. Their sumptuary laws, which undertook to regulate the quantity and quality of the food of the citizens, and their censorship laws, which undertook to supervise and inspect the morals of the citizens, illustrate clearly enough this characteristic of their sociological ideas.

Indeed, Roman jurisprudence, in its more common and general relations, serves to illustrate the same characteristic. As compared with that of the most enlightened and developed nations of the modern age, it betrays a much stronger disposition to give to the more purely moral or religious obligations the sanctions of municipal law, of political authority, which is entirely in accordance with the general proposition, that, in the earlier stages of social science, more is attempted to be effected, through the instrumentality of political authority, than in the later and more highly developed stages. Thus we find that, by the Roman law, which has been followed, in the main, by most of the continental nations of modern Europe, so strict was the rule as to fair dealing, in matters of bargain and sale, that *a sound price not only guarantied (or carried along with it an implied warranty of) a sound title, but also a sound article*, whereas, by the jurisprudence of England and America, which is mainly of modern origin, it guaranties only a sound *title*. The rule of the English and American law, as it prevails in nearly all the States of the American Union on this point, is *caveat emptor*, let the purchaser be on his guard, judge for himself, or protect himself by an *express warranty* as to the quality of the article bought, and not look to the municipal law for protection. In this respect, however, it is very questionable whether the Roman law was not preferable to the Anglo-Saxon. That it was so, indeed, seems to be attested by the fact that the courts, both of Britain and America, have been inclining, of late, towards the rule of the Roman law on this point, at least to this extent, that when an article is sold for a *specific purpose*, (as when a horse is sold for a saddle horse,) there is an implied warranty that it is fit for that specific purpose, or when an article of ordinary trade is sold, there is an implied warranty that it is at least *merchantable*.†

Other illustrations of this class of sociological ideas might be drawn

* See No. v. of this review on Roman Sociology, in March number of *Merchants' Magazine* for 1860.

† The reader who does not wish to consult more ancient and original sources of authority on this point, may find the whole doctrine in relation to it copiously, as well as briefly, treated in Kent's Commentaries, vol. ii., pp. 478–79–80–81, together with the notes and authorities there cited; also in Chitty on Contracts, pp. 556–7–8 of fourth American edition.

from a survey of the nations of antiquity. But these, which, in accordance with common custom, have been selected from the Greeks and Romans, who are best known to the present age of all the ancient nations, may suffice for the purposes of this review.

In the present age, the only noteworthy manifestation of this disposition to aim at accomplishing too much for mankind through the instrumentality of political authority, and yet nothing more than is in itself practicable and desirable, has been in efforts by State authority to constrain the religious conduct, and, more especially, the religious opinions of men. These efforts have proceeded from that policy which aims at what has been commonly termed the *union of Church and State*—a policy which, happily for mankind, the social science of the present age, or of its more enlightened nations, has come at last, in this 19th century of the Christian era, almost unqualifiedly to condemn, although it has not yet been entirely abandoned, even in Christendom. The frightful wrongs and sufferings which this mistaken policy has inflicted on mankind, since the introduction of Christianity, and more especially in modern times, and since the religious reformation inaugurated by Luther, early in the 16th century, has conclusively demonstrated its mischiefs. The civil, as well as foreign, wars it has occasioned, the cruel persecutions for religious opinion to which it has given rise, its proscriptions, its imprisonings, its torturings, its burnings at the stake, the horrors of the Inquisition in Spain, and the monstrosities of that most hideous picture in the book of time, the St. Bartholomew massacre, are an eternal reproach to the Christian name, and, it is devoutly to be hoped, have taught mankind a *lesson* in social science too forcibly ever to be forgotten—the error and mischief of conferring on the political authority of a State, either directly or indirectly, either through the agency of its secular or its ecclesiastical arm, any power to control or interfere with the religious opinions or conduct of mankind.

Before the Christian religion had developed itself in the world, and when the religious sentiment of mankind was as yet but superficial, and had not penetrated very deeply into the human soul, this dangerous error in social science—*that it is the legitimate province of State government to control the religious conduct and opinions of the citizen*—which had been cherished by all the earlier nations, had not occasioned any serious mischiefs. It had hitherto remained dormant and harmless—in its *embryo* state. It had lain there, as it were, the mere *egg of the crocodile.* But when Christianity appeared, and diffused its genial warmth over the human soul, and through all the ramifications of human society, strange as it may appear, this erroneous principle began, for the first time, to manifest its injurious tendencies and capacities for mischief—then *the monstrous reptile was hatched*, and betrayed its real character. Thus it seems to be in all things—so completely do the *dual* principle and the law of antagonism pervade the universe—so completely do the principles of good and evil go hand and hand throughout creation—that no good ever comes to man unattended with its correspondent evil. The larger the rose the larger always is the thorn, the more intense the pleasure the more intense is also its correspondent pain, and the greater the blessing conferred on mankind the greater the affliction which stands ready to countervail it, if we be not properly fortified with wisdom and virtue to protect ourselves against it.

It would be foreign to the purposes of this review, to inquire why it was that Christianity, which, above all other religions, is one of love, of gentleness and good will towards men, should have been the occasion of developing this erroneous principle of Sociology under consideration, into such pernicious activity—to show that Christianity was, by its essential nature, more calculated than any religion which had preceded it, to produce such effects, in such a condition of society, as it has found mankind in, until within the last century, and to show, moreover, that these facts do not constitute, as to partial and superficial reasoning might appear, any valid argument against the belief that this religious system has been of great benefit to mankind, and is destined yet to be of far greater.

However great may have been the wrongs of which Christianity has been indirectly the occasion, through the erring judgments and passions of men alone, and not through any inherent defects in its real principles, mankind have at last triumphed over those wrongs, and have been thereby led, through much tribulation and suffering, to the recognition of the important principle in social science already alluded to—*that not only should the political and ecclesiastical powers of a State be kept distinct, but that neither should presume or be permitted to interfere, (otherwise than by the force of moral suasion,) with the religious opinions or conduct of individuals.*

It may be worth while, in this connection, to remark, that the partial and qualified union of Church and State which still maintains in most European countries, even in liberal England, can scarcely be regarded, with propriety, as militating against the principle just laid down. For, in none of those countries is it assumed, that it is the rightful or legitimate province of government to supervise and control the religious opinions or conduct of the citizen. On the contrary, every one is left free to embrace whatever religion he may choose, and worship his God according to the dictates of his own conscience. In none of those countries is the Church recognized by the State, except as essentially a State establishment, except as a means to an undoubtedly legitimate State end, as a means conducing to the realization of the legitimate function or end of all State government, *the maintenance of stability and order in the State*, so that each individual may be permitted, unmolested, to pursue his own individual aims in his own way.

How far such recognition of the Church by the State, or, in more definite and precise terms, how far the taxation of society, in order to maintain a Church establishment, is a legitimate and proper means to this undoubtedly legitimate and proper end, it would be foreign to the purposes of this review to inquire. It is a question, indeed, which it appertains to the practical statesmen of every country to determine for themselves, in view of all the various conditions and circumstances by which they are surrounded. Suffice it to say, here, that the fact, that the total abrogation of all connection between Church and State has been found, hitherto, to work well in America, does not prove that it would work well in Europe—nay, not even in England. To suppose so would be to commit an error somewhat similar to that before noticed in the course of this review,* which assumes, that because the Anglo-Saxons

* See No. vi. of this review, in May number of *Merchants' Magazine* for 1860, where the question of American slavery is incidentally considered while reviewing Christianity as a sociological force or influence in human society. See particularly pages 542-3-4-5-6-7-8-9 of the Magazine.

are found capable of taking on a very large proportion of civil liberty, that therefore the Ethiopians are capable of taking on the same proportion, and should be allowed to receive it. It is astonishing, as well as lamentable, that mankind, even in "this enlightened and progressive age," require so frequently, and so emphatically, to be reminded, *that all men are not equally fitted for the same measure of civil liberty, and that, moreover, all conditions of human society, (irrespective even of influences of race,) are not equally adapted to the same political institutions.*

The disposition which has existed in the present age to accomplish too much for society through the instrumentality of political authority, or to transcend the legitimate function of government, has not only manifested itself in attempts to direct and control the religious *opinions* of men, or their more general professions of religious faith, but also in attempts to direct and control their general *conduct* and *conversation.* It is the Romish Catholic part of Christendom that have been more especially chargeable with attempts of the former kind. But the Protestant portion of the Christian world have been the more conspicuous for their attempts of the latter kind. The Romish Catholic Church has been generally content with constraining the religious *professions* of men, with exacting homage and tribute to the Church. But the Protestant ecclesiastical bodies have shown the more offensive and tyrannical disposition, not only to exact rigid professions of faith, but also a rigid conformity of *conduct* to those professions. The Protestants have been, indeed, more sincere, more earnest, and more consistent with the dictates of a genuine religion; yet they have more seriously violated the true principles of social science, and civil liberty, in this respect.*

The most remarkable illustration of this disposition to control the religious conduct, as well as faith of mankind, to be found in modern times, if not, indeed, in any times, will readily suggest itself, to the well-informed reader, as that exhibited by the Puritans of the 17th century, not only in England and Scotland, but more especially in New England, or in those colonies of the English in America which have since been comprehended under the general title of New England. In this connection, the famous "Blue Laws of Connecticut" can hardly fail to suggest themselves to the mind of every one.

It seems, indeed, that in these Puritanical laws of New England, the common proverb is strikingly exemplified that "the darkest hour is just before day." For, surely, never before has so bright and auspicious a day of liberty beamed upon the world, as that which mankind are now enjoying; and never before was the hour of tyranny, and violation to individual rights, so dark and dreary, as when these old Puritans of New England, who had fled themselves from the tyrannies and persecutions of the old world, had reared up for the societies which they had established in the new world, one of the most rigid and intolerable systems of tyrannical government that the world ever saw.

It would not be very difficult, however, for one who is able to penetrate below the surface, into the depths of principles, to discern that these seemingly conradictory phenomena are not irreconcilable; that they were both but different phases of the same general movement; that the light naturally

* Of course, these remarks are intended to apply only, or at least mainly, to a portion of the Protestant world—to those hereinafter particularized, the Puritans.

proceeded from the darkness, the liberty from the tyranny. It is, indeed, but another instance of the *paradoxical* character of truth, in general, that the Protestant part of Christendom, in general, and the Puritans, in particular, to whom the present age is largely, if not mainly, indebted for its liberal and just ideas in respect to both civil and religious liberty, should have been, in some important respects, the most serious offenders against both.

Another illustration afforded by the present age, and even the present century, of the class of sociological ideas which aims at accomplishing too much for society through the instrumentality of government, or the general authority of the society, may readily enough suggest itself as being found in the various *communist* societies which have been at different times attempted in the present age, though never with any success, except in the instances of those isolated and eccentric communities commonly styled Shakers. These communist societies, however, inasmuch as they generally aim at impracticable results, are more properly to be referred to the *third* class of the political school of sociological ideas, under which head they will be more particularly noticed.

Before taking leave of these two classes of sociological ideas that have been already considered—the first and second of the political school—the former of which confines its endeavors to improve society to the legitimate function of government, and the latter of which carries its endeavors to an extent which transcends this legitimate function, it may be important to make some general observations as to the function of government that have not hitherto been made.

While the legitimate function or end of government, that is to say, the main controlling and paramount function of government, is, *to insure mankind against molestation or interference*, or, in other words, is *to insure that general, uniform and wide-spread stability and order in the State, from which individual security against molestation or interference follows, as a natural consequence*, it is to be remembered that the means by which this great paramount end is to be insured must widely vary with circumstances. Accordingly we find that while in Russia and the United States of America the great leading end of government is the same, namely, the maintenance of the stability and order of society, the uninterrupted course of law, the preservation of the existing order of things, the actual government of the one is little else than an absolute military despotism, while that of the other is one of the most democratical that has ever existed among men on any large scale. And this despotic government of Russia is, perhaps, as necessary, and therefore as right, just, and proper for Russians, as is the government of the United States for the people of those States.

It may be readily discerned, moreover, that as the means necessary to insure the great controlling end of government are found to be far less stringent in America than in Russia, owing undoubtedly to the far greater general advancement of the American people in intelligence and civilization, so as human society advances still further (if they ever shall) in intelligence, civilization, and real improvement, than they have as yet done in America, a still further abatement of the stringency of government may be found both practicable and desirable, or, speaking in a wider sense, it may be found both practicable and desirable to dispense with the interference of government to a much greater extent than has ever yet been attempted in civilized society.

Some suggestions of this nature have been, indeed, already made, which merit more consideration than would at first view appear. It has been proposed, for example, to abolish the post-office department of modern governments, and leave the transmission of letters and papers to the ordinary vocation of the *common carrier*. It has been proposed, also, to abolish the war department of government, the army and navy, as an arm of State authority, and to have the wars of nations *fought by contract*, the government having no warlike function to perform, except to contract with some wealthy and enterprising capitalist, or company of capitalists, for a stipulated consideration, to whip the enemy, or defend the country, *according to specifications*.

Neither of these projects, however, would entirely dispense with the action of State government; for the business of the *common carrier* is under the *judicial* department of goverment, and the war making power, even under the plan proposed in relation thereto, would still be under the control of the legislative and executive departments, or one of them, in respect to the declaration of war and the contracting with individuals or corporations to prosecute it.

But a far more sweeping innovation on the long established and time-honored prerogatives of government, or the public authority of States, has been proposed in the present age and century. *It has been proposed to abolish all laws for the collection of debts.** Startling as this proposition may appear, a little reflection will readily make it apparent that it would be but an extension of a principle already recognized and acted upon by States the most conservative, as well as progressive. What are all laws exempting the property of the debtor from liability for debt, which abound in the American States, as well as in that of Britain, but *a quasi abolition of laws for the collection of debts?* What is a homestead exemption law but such a law? Nay, what is the entail law of England but such an one? Is it not a virtual declaration that, to the extent of the entailed property, the right to collect debts, of the tenant in tail, shall be abolished? How far, indeed, such a sweeping application of the principle of exemption from liability for debt would be expedient in any state of society, is one of the most profound and difficult questions that can be presented to the social philosopher.

If it should be found, by actual experiment, that society could endure such a sweeping innovation on time-honored usages, it might then be proposed *to abolish all laws for the enforcement of contracts* of whatever description. Then it might be proposed *to abolish all laws for the redress of private wrongs*, such as relate to slander, trespass, and other private grievances. It would then, after these various steps should have been taken, only remain *to abolish all laws for the prevention or punishment of public wrongs*, in short, to abolish the whole criminal code of society, and government would be completely abolished, and that condition of society realized which some visionaries seem to regard as eventually practicable.

It should be superfluous to remark that such a condition of society,

* This proposition was made during the protracted discussions on the policy of usury laws, which was carried on, in the city of Cincinnati, during the winter of 1851-2, by Mr. Charles Remelin, a gentleman of some prominence as a politician in that community. See the contemporaneous newspapers of Cincinnati, and the *Inquirer* in particular. The writer of this Review must confess that this was the first, and it has been the last, time that he has ever met with this bold and startling proposition, though it occurred to him at the time, and has since, that it had more claims to serious consideration than at first view appeared.

one so completely free from the restraints of public authority, could never be realized, or found to work well, unless mankind should generally improve to an extent which it would be utterly chimerical to calculate on, and which it may be safely asserted, will never be realized so long as they continue to be men, and "a little lower than the angels." How far, and in what states of society, some farther approximation may be made in these various respects towards an abrogation of political authority, with advantage to society, are among the most important practical questions that can address themselves to the social philosopher. These questions, however, open up such a vast and varied field for consideration that no one who is not deeply read in the principles of social philosophy should presume to pronounce judgment upon them. They will not be considered in this Review.

Art. II.—STADE DUTIES, AND DUES LEVIED BY THE RUSSIA COMPANY

GEOGRAPHICAL POSITION OF STADE—ORIGIN OF STADE DUTIES LOST IN OBSCURITY—HISTORY OF THE STADE TAX—THE TOLLS BECAME THE ELECTORS OF HANOVER'S PROPERTY—COLLECTION SUSPENDED—RENEWED BY GEORGE III., AGAIN SUSPENDED, AND REVIVED IN 1814—TREATY OF VIENNA—CONVENTION AT DRESDEN—COMMISSION—UNSATISFACTORY TERMINATION OF LABORS—STADE TARIFF—CONTRARY TO THE PRINCIPLES OF THE TREATY OF VIENNA—AGITATION IN ENGLAND, 1844—A CONVENTION AGREED TO—THE TREATY HIGHLY OBJECTIONABLE, AND TOTAL ABOLITION REQUIRED—TAXING POWERS OF THE RUSSIA COMPANY—DUTIES LEVIED—HOW APPLIED—EXPENDITURE IN 1852—DEFENCE OF THE COMPANY WHOLLY UNTENABLE—ARGUMENTS ANSWERED—TOTAL ABROGATION OF CHARTER EXPEDIENT.

On the left bank of the Elbe, about 20 miles from the city of Hamburg, is the government of Stade. It is part of the Hanoverian territory. The city which bears that name is built on the banks of a little river, the Schwinge, which flows into the Elbe, and near the confluence of the two streams stands the insignificant port of Brunshausen, which, with its Castle, commands the spot where the Stade Duties, charged by the Hanoverian Government on goods conveyed up and down the Elbe, whether for consumption or transit, were formerly charged.

If the right to claim payment of the Sound Dues was open to dispute, the usage by which the possessors of the territory on the left bank of the Elbe rest their claims, to levy toll upon merchandise carried in ships navigating the Elbe, is still more questionable.

The town of Stade is of the greatest antiquity. It is supposed to have been a station of the Roman legions under Tiberius, and the toll collected there can be traced as far back as 1187, under the German emperors, to whom the town was subject. Stade was for a long period the chief residence of the Hans Towns Confederacy; and we find that, in 1648, at the treaty of Westphalia, it was ceded with the Bremen territory to the king of Sweden, who exercised as a customary right the practice of levying toll on all vessels navigating the Elbe; those of Hamburg were, however, excepted, inasmuch as that port had been declared exempt from the tolls by a special rescript of the Emperor Frederic Barbarossa. Some disputes having arisen between Sweden and the city of Hamburg, as to the extent of the tolls legally authorized, a convention was held by these

two States in 1691, and a treaty executed by them for the final settlement of the question. In that treaty, the exemption of Hamburg being first recited, the mode in which the vessels of other nations were to pay the required dues was clearly laid down; and in the following year, a scale of duties, or tariff, was prepared under the sanction of both parties, which was formally annexed to the treaty. These two documents were officially published in the year 1692, and were styled "the permanent settlement of the Stade tax." This tariff was framed upon a very simple and a general principle—that of rating most articles of commerce at one-sixteenth of their value. In certain cases the maximum charge settled was one-sixteenth per cent on the real value. In all others the duty was to be paid on either system, as the merchant himself might elect, and not the collecting officer. Other provisions for the "favor and protection of trade" were added, and Sweden formally renounced all idea of augmenting, or altering, the tariff. The king of Denmark, having wrested the city of Stade from Sweden, in 1715, ceded to George I., as part of his Electoral dominions of Hanover, the Duchy of Bremen, which includes the city of Stade. The consideration given was £150,000, which the British Government undertook to pay, in furtherance of the hostile proceedings at that time carried on by England against Sweden. So that, in point of fact, the people of England have been taxed to buy these tolls for Hanover! The British ministers justified this bargain by declaring that the sacrifice was necessary to secure the interests of our trade with Hamburg, which even at that period were of considerable importance. And when the Elector of Hanover took possession of his new territories, he did so with all the pre-existing obligations, amongst which were the imposts at Stade. These tolls, therefore, became in this manner not the property of the State of Hanover, but the private perquisite of the king; and George II., in consideration of his obligations to the British people, in regard to this territory, relaxed, in 1736, the mode of collecting the tolls; and, in 1740, renounced them altogether as far as related to British and Irish commerce. This concession is noticed under the year 1740 in these words:—"In this same year His Majesty, King George II. of Great Britain, and sovereign of the town of Stade, in the Duchy of Bremen, was graciously pleased to remit to all British and Irish ships the ancient toll payable at Staden by the ships of all nations in sailing up the river Elbe. For which bounty, his said Majesty received an humble address of thanks from the British Company of Merchant Adventurers trading to Hamburg."

It might be supposed that this obstruction to trade would thus have been for ever removed, but the Stade duties were reimposed by George III. It is unavailing now to impeach this resumption.* We need only say, that it would not have been tolerated at the present day. In the year 1804, Hanover was occupied by the French, and the Stade duties were suspended till 1814, when the advance of the Allied Powers compelled the French to retire from the territory. When, however, the ancient government of Hanover was re-established, in 1814, it revived the Stade duties, with many aggravations. This proceeding on the part of the Hanoverian authorities, having its mainspring at the Court of St. James', gave rise to much irritation and remonstrance. But, as the Con-

* *Vide* Anderson, Chron. of Commerce.

gress of Vienna was then about to assemble, no formal protest was made against the revival of the Stade tolls, as it was generally anticipated that, when that Congress assembled, every grievance of the kind would be remedied. One of the first subjects which occupied the attention of the Congress of Vienna, was the regulation of the international river navigation of Europe. With a view to the satisfactory settlement of this matter, so important to every State of Germany—and, indeed, as we have since found it, to every State of Europe—the plenipotentiaries at Vienna agreed that certain general principles should be applied to all the rivers of Germany. These wise and comprehensive regulations have, however, been frustrated by the ambition or interests of predominating powers. The people of Germany, when they were published, formed the most pleasing expectations of extensive commercial intercourse, no longer fettered by fiscal or other obstructions. The day, they expected, had at last arrived, when the great rivers of their country, the arteries of her trade, and the instruments of her civilization, should no longer be obstructed by every petty, sordid, and grasping authority; but, by the universal voice of Europe, should be declared the natural and organic right of all her States, and thus be irrevocably thrown open to the trading enterprise of the world. With regard, however, to the Elbe, that brilliant dream was utterly dissipated. The Congress, having laid down the principles* on which all measures for regulating the rivers should in future be framed, deputed to the States bordering each river, the duty of settling the details relating to its navigation. Commissioners appointed to reorganize the regulations of the Elbe navigation, met at Dresden, in June, 1819. They consisted of the representatives of Austria, Prussia, Hanover, Saxony, of Denmark for Lunenburg and Holstein, Mecklenburg, Anhalt, and the city of Hamburg. The convention assembled on the 3d of June, 1819, and in the outset everything seemed to accord with the liberal intentions enunciated by the Congress of Vienna, with regard to the free navigation of rivers. On the 19th of June, however, the Hanoverian Commissioners astonished the meeting by raising objections to any interference with the Stade toll, asserting that it did not come within the sphere of their duties. They alleged that it was a *sea*, and not a river, tax, levied on ultramarine vessels and produce. This frivolous pretext was overruled by the other ministers present at the conference, whose duty it was, as expressed in their commission, "to inquire into everything relating to the navigation of the river," and, therefore, the cognizance of the Stade toll was obviously within the province of their duty. But the quibble of the tax being a sea tax was renewed by the Hanoverian Commissioner, whenever reference was made to the subject; and although this subterfuge was at last abandoned, and a promise given that a tariff would be submitted to the inspection of the Commissioners, three years elapsed before that pledge was redeemed. Both Denmark and Hamburg were dissatisfied, and strongly protested against the withholding of a document essentially important with regard to the navigation of the river. The Commissioners at length, wearied out by the continued evasions of Hanover, and the fruitless discussions to which they gave rise, came to the following formal resolution, which was incorporated in their proceedings as the 15th article of the Convention of Dresden:—

* See Treaty of Vienna, October 16. Hurtlet Treaties, p. 15, et seq., vol. i.

"Without prejudice to the general principles expressed by the Congress act, respecting river navigation, it is agreed, with respect to the Stade tax, to waive and renounce all further discussion, in consideration that Hanover engages to supply the commission with the tax tariff for their information, and further binds itself not to raise or vary the said tariff without the concurrence of the other States interested therein. His Majesty the King of Denmark, and the free city of Hamburg, reserve to themselves their own rights on grounds of existing customs and contracts, and, therefore, with regard to the said king and Senate, the question of the Stade tax remains a *res integra*."

As relating, therefore, to Denmark and Hamburg, the question of the Stade duties was left untouched by the Convention of Dresden; and so, also, with respect to the other States, on condition that the general principles laid down by the Congress should be respected in the forthcoming tariff—that a copy of it should be laid before the commission, and that Hanover should introduce no alteration into it without the concurrence of the other interested States. Then, and not till then, did the Hanoverian Commissioner, (when all the labors of the convention had terminated, and when the commissioners assembled for the last time to exchange the ratifications of the several courts,) produce his tariff, which of course passed without discussion or revision. It will, therefore, be seen that although the convention successfully resisted the preposterous claim of the king of Hanover, to consider the Stade duties as sea taxes, the real object which this royal pettifogger had in view, that of preventing any interference with his system of collecting taxes at Stade, was completely attained. How far the influence of Downing-street operated in this matter, may be conjectured. The Stade duties, which in point of fact the English people had purchased, thus became the private property of the electors and their successors, the kings of Hanover.

It is almost unnecessary to recite the voluminous details of this Stade tariff. Up to the year 1839, it was an unacknowledged, if not a secret, document. Neither our manufacturers, merchants, nor shipowners, knew the precise nature of this impost, except that it was very extortionate, and, besides being most vigorously enforced, was a most grievous obstacle in the path of our commercial relations with Germany. All vessels bound for Hamburg, had to heave to, and those of some countries to anchor, in passing the guard-ship opposite to the castle of Brunshausen, and to send their papers, including manifests, bills of lading, cockets, &c., on shore. A great many absurd and capricious distinctions were made in the description of merchandise, and it was scarcely possible to avoid committing errors, which subjected vessel and cargo to all the rigor of the Hanoverian fiscal authorities. Though it was agreed upon all hands that the tariff was an illegal document, with no apparent force or validity from the treaty of 1692, and that it was, in fact, a heap of miscellaneous exactions, resting upon mere usage, or rather usurpation, it was, nevertheless, rigorously levied in spite of the remonstrances urged against it. This vexatious tariff was thus described by the States of Denmark and Hamburg, in 1824. The testimony of Hamburg is decisive, as her commerce enjoyed a privilege of exemption. "With regard to this tariff," said the representatives of these States, "we have carefully considered that which was produced at Dresden. It is impossible that we should be satisfied with the pretensions of a State to levy such taxes, on no other

grounds than its own will and pleasure. A tax, without a fixed scale of amount, would be perfectly monstrous, and nothing less than a revival of the club law of our ancestors in the dark ages. There is no document in which a rule of taxation can be found, except in the tariffs drawn up by mutual agreement between Hamburg and the crown of Sweden, dated 15th of August, 1692, which is to be found in the Bremen and Verden *Corpus Constitutionum.*" In the arguments adduced against the tax, a vast number of details were voluminously reviewed, but the want of a fixed standard for estimating the tax was the chief and fatal objection. A vessel, however, going up the Elbe to Hamburg, was required to pay taxes of eight kinds. Taxes on the ship, amounting on a ship of 250 tons to about £200, and taxes on the cargo, levied in the most arbitrary manner. These taxes in some cases amounted to 5 per cent on the value of the commodities, and they sometimes largely exceeded the customs duty levied at Hamburg on imports. The next tax was a commission of 6½ per cent on the two former taxes, paid to the collecting officers. Then followed "ship's expenses," which might be deemed forced harbor dues. The fifth tax was a commission on the fourth tax, to the collecting officers of Hanover. "*Eventualiter interim* certificate" was the sixth—the nature of which is beyond our comprehension. The seventh was the certificate of return; and the eighth and last tax was the tax on passing Stade outward bound. The vessel, having been thus fleeced, was permitted to proceed on her voyage. From these various imposts the king of Hanover obtained for his private revenue not less than £70,000 or £80,000 per annum. The slightest variation or error in any of the shipping documents, subjected the vessel and cargo to confiscation. In one instance, three bales of cotton, or merchandise, inadvertently entered as "bales of cotton twist" in the bill of lading, were visited by seizure, and a fine of £215 17s. 6d. imposed, the difference of Stade duty being only seven shillings! All applications for redress were unavailing, the Hanoverian collectors retained every farthing of the money. The slightest act of contumacy exhibited towards the officers, or any hesitation to stop the vessel at the required spot, was visited by the most severe fines, and all petitions and remonstrances against the exactions of a petty German despot were unavailing. The family influence of the sovereign of Hanover was so great at the British Court, that no minister of the crown dared to impeach this scandalous abuse of power. Mr. Wheaton has shown, incontrovertibly, that a sovereign power, holding a tract of territory on one side of a stream, has no right to exact dues for the privilege of passing. If this were so, the Danes might set up a plea to make a similar exaction, and place a guardship below Altona. Such a proceeding would not be tolerated for a single instant. And we have good reason to suppose that it was only the Hanoverian influence, then paramount in Downing-street, which prevented the English Government from sending an English frigate to the Elbe, for the purpose of putting an end to this villainous abuse.

On referring to the sixteenth act of the Congress of Vienna, we find it declared that the navigation of the German rivers shall be free; that the duties collected shall be, as nearly as possible, the same along the whole course of the river; that they shall be regulated in an uniform and fixed manner, with as little reference as possible to the different qualities of merchandise; that these duties shall in no way exceed those now

paid; and that they shall never be increased without the consent of the co-riverain States. We find it further declared that the tariff shall be so framed as to encourage navigation. That there shall be no port or forced harbor dues; and that even those now existing shall not be permitted, unless all the States deem them necessary for general commerce. Specific stipulations are also made to prevent customs officers throwing impediments in the way of navigation. But all these wise and liberal regulations have been utterly set at naught by the authorities of Hanover; even though the system established at Stade has no justification in custom or treaty, unless it can be said that, because in 1756 we procured a treaty by which English vessels were exempted from stopping at Stade to pay the toll, and were permitted to go on to Hamburg, where the toll was adjusted, that therefore we ought to submit to its exaction in perpetuity. In 1826, the Americans consented, by treaty, to pay the Sound dues, but that did not prevent them from repudiating payment at a future period.

The monstrous character of these duties was so apparent, and their injury to us, in our large commercial relations with Germany, so serious, that in 1839 and 1840 a severe pressure was put upon the ministers of the crown to get rid of them altogether. Mr. Hume recommended a friendly communication, through the medium of an officer in command of a 74 gun ship, alongside the Stade vessel, and after three or four years' further petitioning and remonstrances, a convention was at length concluded between Her Majesty and the king of Hanover, and signed at London, July 22, 1844, being the "annex" to a treaty of commerce and navigation between the contracting parties.

In 1844, the emperor of Austria, the king of Prussia, the king of Saxony, the king of Hanover, the king of Denmark, the grand duke of Mecklenburg-Schwerin, the duke of Anhalt, and finally the free town of Lubec and Senate of Hamburg, through their representatives assembled in London, agreed upon a second revision of the Dresden regulations for the navigation of the Elbe. By article one it was declared that the new regulations agreed to should commence on the 1st October, 1844, and should not be altered without the consent of the contracting parties. The remaining six articles laid down general rules for regulating the toll, with a view to establish some systematic proceeding. Following that, there was a separate convention by the same parties, the object of which was to secure a complete tariff of goods,* alphabetically arranged, and fixed weights for certain articles. One article of this convention stipulates that on the demand of the other Elbe-bordering States, the Royal Hanoverian Government shall, at the expiration of every twenty-five years, submit the tariff of Brunshausen toll to a revision by the Commission of the Elbe Navigation, "with a view of reducing to ¼ per cent of the ascertained average price of goods such rates of duty as shall, according to the average Hamburg Exchange price of the three years last past of the goods rated, be shown to exceed ⅜ per cent; it being understood that if that rate shall give a fraction, the duty to be paid shall always be in full." From this article, which is exceedingly confused, we presume the basis of the arrangement was that a duty, equivalent to a ¼ per cent, was agreed to, converted into a specific duty in conformity

* Separate article C.

with the tariff annexed to the convention. In regard to the tariff, we cannot do better than quote the words of Mr. M'Culloch:—"This schedule," he remarks, in a late edition of his Commercial Dictionary, "is annexed to a bulky paper laid before Parliament, in 1844. For some unknown, though certainly very bad reasons, the duties are not computed even in the translation of this paper, in English, but in German weights, measures, and moneys, and are, consequently, unintelligible to 99 out of every 100 English merchants and shipmasters. We should have translated them had they not been too voluminous for insertion in this place; and it is the less necessary as summaries of them may readily be had in Hamburg. Still however, this arrangement is merely an improvement of what is in its nature incurably bad. The toll on the Elbe is an outrage on all commercial nations; and instead of being modified should be wholly repealed."

The treaty, no doubt, effected a modification of the tolls. On the other hand, England was brought to admit, or at all events to give a quasi admission, of their legality. Thus British subjects were bound to pay them, so long as they were levied in conformity with the treaty. And we cannot but consider the whole course taken by the government on that occasion as open to the most grave reprehension. British interests have been subordinated, in a most objectionable and offensive manner, to the private and selfish views of the king of Hanover. After what we have stated, we might even go so far as to assert that the payment of any toll whatever, by British vessels navigating the Elbe, might have been resisted upon the most justifiable grounds.

To Mr. Hutt, and to Mr. J. L. Ricardo, great credit is due for having perseveringly kept this subject before Parliament, albeit their efforts have not been crowned with the success they deserved. Mr. Ricardo revived the subject last year, and a most interesting discussion followed. Mr. Henley, at that time representing the Board of Trade, endeavored to evade responsibility of action by referring the matter to a select committee. Lord Palmerston objected to the throwing such a question upon a committee, and insisted that it was one which the executive government ought to decide, after taking legal advice, whether the tax was legal or not. Mr. Clay, representing Hull, suggested buying up the dues for a round sum,* and in this diversity of opinion it was agreed that a committee should be appointed. The precise question to be referred to the committee was, however, left in doubt. Mr. Henley, at a subsequent period, said that he had prepared the terms of reference, and sent them to Mr. Ricardo for consideration, but that gentleman said "that unluckily he had never received them." In point of fact, we believe, the arrangement for the appointment of a committee fell through, and therefore, as regards the House of Commons, it may be said that no steps were taken in the matter.

The Executive has, we doubt not, felt embarrassed how to proceed. But in the changes of administration which have taken place of late years, it was found necessary to do something, and as it had been strongly urged, in various quarters, that the best course to proceed was to give notice of the termination of the treaty between this kingdom and Hanover, of the 22d July, 1844, the Foreign-office at length took that step, and notice was given accordingly.

* Mr. McCulloch recommends this likewise in the last edition of his Dictionary.

This notice, however, as many anticipated, only seems to have complicated the matter. What communications have since taken place between the governments of Hanover and Downing-street, we are not informed. It was, however, evident that, upon the abrogation of the treaty, we should fall back upon the arrangement previously existing, and risk the alternative of being called upon to pay a higher rate of duties, unless, indeed, we plucked up courage to refuse to pay any more river taxes whatsoever. But we do not exactly see how we can come to that resolution, while we continue to satisfy the claims of the "privileged bodies" at Liverpool, Hull, and Newcastle. At the same time, our forbearance ought to have a limit. We cannot continue to pay in perpetuity. The tax is altogether an extortion; not being founded upon usage sanctioned by international law.

The position of the Stade duties,* in regard to the question of their legality, having been referred to the law officers of the crown, it has been deemed desirable to renew the treaty of 1844 for a limited period, which we believe will expire about the end of the present year. Of course, the notice of terminating the treaty of 1844 fell to the ground on the renewal of the present provisional treaty, which, if allowed to expire by effluxion of time, will only leave matters in a more unsettled and complicated state than before; and we fear that our recognition of the right of Hanover to levy any duties at all may materially prejudice our case in future negotiations. Probably the Americans will be good enough to interfere. Their refusal to pay the Sound duties was the real cause of their being terminated.

In dealing with taxes on shipping we must not omit the Russia Dues, collected by an incorporated body styled the Russia Company, which has contrived for a series of years to levy, in what we conceive the most unjustifiable manner, about £12,000 per annum upon the shipping and commerce of the country. It was, no doubt, exceedingly meritorious, in the remote times of Philip and Mary, to offer every encouragement to public bodies to undertake distant voyages, with a view to make discoveries of unknown lands, by which the "commerce and glory" of our country might be extended. At that time, the universal notion prevailed that a short route was practicable to India, by way of the northern regions; but the risk and danger attending these voyages of discovery were so great, that individuals did not dare to attempt them, and powerful corporate bodies could only be stimulated to the undertaking by means of great rewards and concessions. In this manner, numerous companies obtained chartered privileges, and amongst others the Russia Company was established, in the reign of Philip and Mary, by letters patent granted to "certain merchant adventurers for the discovery of lands unknown."

This patent was confirmed by the act of the 8th of Elizabeth, 1566. The schedule to the act authorizes them to collect certain duties on articles specified, being imported from St. Petersburg, Constadt, Narva, Onega, and Archangel.

In the reign of William III. (1699) another act was passed, extending the trade to Russia; but the Russia Company, like his Majesty of Hanover, have always been exceedingly averse to any inquiries which might be instituted into the state of the revenues of the corporation, or the

* *Vide* Lord John Russell's statement, in answer to Sir M. Peto, July 18, 1859.

means by which these revenues were maintained. The House of Commons, however, has elicited a number of facts from which it may be gleaned that this ancient corporation has, for a very long period, exacted upwards of £12,000 a year upon the shipping and commerce of the country, under powers which have long survived their original design.

The dues collected by the company are designated by the old familiar names of Lastage, Address money, *Church money*, Company's agent, Cronstadt agency, Passes, Clearing Passes at Cronstadt. And it would appear, from a return to an order of the House of Commons,* dated 1st June, 1848, that the average amount under each head, levied annually at St. Petersburg, during twelve years, 1836–47, was:—

Lastage	£1,458	12	9
Address money	2,310	11	2
Church money	2,414	10	1
Company's agent	714	14	0
Cronstadt agency	1,953	0	7
Passes	1,897	8	7
Clearing passes at Cronstadt	315	2	6
Total	£11,058	19	8

The items in the foregoing account are charged as port charges, though they are not so, as the following explanation will exhibit:—The "lastage" is 12 copecks per last on the register burden. Of this, 10 copecks are levied by the Custom-house, being the whole direct impost on all foreign, as well as Russian, vessels; the remainder goes to cover petty expenses at the Custom-house. "Passes" are paid to the Custom-house agents for stamps for clearing outward and inward, for entries preparatory to taking out the pass, and for petty expenses. "Clearing passes" are paid at Cronstadt, to agents for British shipping, as part of their commission. The "address money" is received by the consignees of the ship, for superintending the ship's business, though a compensation is charged for collecting the inward freight.

In regard to "Church money," £1,791 is paid to the treasurer of the committee of the chapel of the British Factory at St. Petersburg, for the maintenance of the British Episcopal Establishment at that place, and also to the poor's fund, which is appropriated to the relief of the British poor exclusively, and the remaining £623 to the agent for the Russia Company's chapels in Russia, for the maintenance of the British Episcopal Chapel at Cronstadt.

The money collected under the head of "company's agent" is received by the commercial agent appointed by the Russia Company, as a compensation for his trouble in making representations on behalf of the shipping and commercial interests to the Russian authorities, and to her Britannic Majesty's ambassadors at St. Petersburg.

It would occupy too much space to insert the long schedule of duties payable to the Russia Company, on goods imported from St. Petersburg, Cronstadt, Narva, Onega, and Archangle. We may merely state that hemp is charged 3d. per ton; flax, 4l. per ton; iron, 2d. per ton; tallow, 3d. per ton; deals, 3d. per 120,† &c. Goods not rated in the schedule pay ½d.

* The following papers have been published under the authority of Parliament:—No. 303, session 1836; No. 558, 12th August, 1836; No. 90, 26th February, 1850; together with the various reports of local and other charges on shipping.

† The schedule will be found p. 449 of Report of the Local Charges on Shipping, 1854.

per cent according to their value, on the declaration of the importer. In a word, the average annual gross amount of dues levied on Russian produce imported into the United Kingdom during twelve years, 1835–47, was, London, £1,038; outports, £878; total, £1,916. In the year 1852, London paid £1,267 4s. 5d.; Hull, £446 18s. 10d.; Liverpool, £226; all the other ports of the kingdom contributing less than £50. The annual amount received by the company is now absorbed by the expenses; but in the year 1848, the corporation was possessed of funded property to the amount of £32,500.

In the year 1852, the company expended in salaries to chaplains, £1,059; agents, £500; pensions to a widow and clergyman, £150; plate to governor, £85; courts and committees, £226; rent of office, £50; salary and secretary, £300; do. sergeant, £30; grant for school at St. Petersburg, £100; organ at Moscow, £25; miscellaneous expenses, £176; besides sundry numerous minor charges, making a total of £2,894 1s. 4d. The Russia Company have an agent at St. Petersburg and one at Elsineur, from whom they receive all necessary information regarding the trade of Russia and Great Britain. From Elsineur a list is forwarded, two or three times a week, of all vessels which pass the Sound, particularizing any disasters, wrecks, &c., that may come to their knowledge. These lists are sent to the Baltic Coffee-house, where the merchants, brokers, and other persons attend who are concerned in the Russian trade, and all the information so received is instantly made public.

A peculiarity has been claimed by the Russia Company. It is alleged that the company represents in England a large colony of British subjects, established in the cities of St. Petersburg and Moscow, and in the ports of Cronstadt and Archangel; that the British subjects in St. Petersburg alone amount to 3,000; and this number is constantly increasing, from the influx of artisans and their families, who are in the employment of the Russian manufacturers; that the Levant and African Companies did not represent any large colony of English merchants resident abroad, and had no church establishment, but only an occasional chaplain at Smyrna, though they had considerable patronage in the appointment of consuls and agents with large salaries, derived from the onerous dues levied on the trade.

These arguments are wholly untenable at the present day. The Levant and African Companies have long ceased to exist, and the power conferred upon a chartered corporation to tax shipping, for either charitable or any other purpose, is at variance with the declared principles upon which all legislation has been founded in modern days. The Russia Company pretend that Englishmen of respectability will not willingly establish themselves in a country where they have no certain provision for the exercise of their religious duties, and one effect of the breaking up of the church establishment of the Russia Company would be the abandonment to the German and the Greek of those advantages which the British merchant now possesses in having establishments in Russia. It is quite preposterous to urge such pretenses as justifiable grounds for taxing shipping. It would be just as absurd as to raise a tonnage duty for the payment of church-rates. But the Commissioners, appointed in 1853, to inquire into the local charges on shipping, thus sum up the advantages of the present system. They say, "if it provides a church establishment in Russia, in favor and support of which British residents, of all religious persuasions, agree to waive their doctrinal differences—if, under its operation, the poor of the increasing com-

munities of British subjects are supported, and the education of the young provided for; if it afford the means of union and common action in all cases where the interests of trade may be affected by political events, then it would be peculiarly undesirable, at the present juncture, to break up this association, which it would be impossible to revive under another form."

It would be waste of time to reply to such arguments, and we are surprised that a committee of the House of Commons should include them in their report. All these objects may be very laudable, and if so let them be provided for out of the Consolidated Fund. But it is most unreasonable and unjust to require the shipping and commerce of the country to submit to special taxation to carry them out. We have highly-paid consuls and ambassadors at St. Petersburg, who are perfectly competent to make any communication to the authorities, and we have power to enforce attention to their just representations. Therefore, to require the intervention of the Russia Company, for any such purpose, is superfluous and unnecessary. As regards their appropriation of the large funds exacted, to deserving objects of charity, we need only remark that it is very easy to be charitable with other people's money. To invest a chartered company with taxing powers, exercised in every port in England, for such a purpose, is wholly incompatible with common sense and justice.

It is very much to be regretted that, when the war in 1854 broke out between Great Britain and Russia, and the company's powers to collect these dues were suspended, Parliament did not interpose and abolish the charter. A bill in fact was introduced, and its main principles received the sanction of the House of Commons; in which, among other reforms connected with local charges on shipping, the abolition of the Russia Company held a prominent place. There was, as some of our readers will remember, an opposition raised to the main provision of the bill, but it sprung from other interests. And it was in consequence of the opposition so raised, quite irrespective of the Russia Company, that the bill was not persevered in. Hence the taxing powers of the Russia Company have been indefinitely perpetuated, or until government shall resolve to deal with the grievance. It is not, however, to be tolerated, that a body of men, whose names are studiously concealed and kept from the public, should have the power of taxing British shipping without being responsible to any one for the appropriation of the funds raised. As an example of how the money is expended, we find that in 1838, according to a return now before us, the Russia Company gave £193 for an entertainment to the Russian embassy; in 1839, they spent £595 on a similar entertainment to the Grand Duke Alexander, the present emperor of Russia. They paid £14 for expenses connected with the receipt of his portrait; £260 for engraving, and £200 for framing and embellishing the portrait of the Emperor Nicholas. Surely the shipping of England ought not to be taxed for such "advantages" as these. Nor should they be amerced to pay £100 to the churchwardens at Moscow, at which place an organ, costing £25, was provided. Such are the charges which the shipowners are now called upon to pay, because our ancestors did not exactly know the shortest way to the Indies. They are altogether indefensible, and must be abrogated. Whatever claims other corporate bodies may have, the Russia Company has not the smallest claim to compensation; indeed, the funded property of the company, wrung from our shipowners and our seamen, might, with propriety, be bestowed upon the Merchant Seaman's Fund, by way of restitution.

Art. III.—MARITIME RELATIONS.

Mr. W. S. LINDSAY, M. P., on the occasion of his recent visit to this country, was invited by the New York Chamber of Commerce to address it on the various subjects of commercial relation that are subjects of negotiation between the two countries. In compliance with that request he delivered the address which we transfer to our pages:—

Mr. President and Gentlemen:—I thank you for having invited me here to-night, and for the opportunity which you have given me of stating to you my views in regard to various maritime questions in which the shipowners and the merchants, and, I may add, the people of both England and America, are deeply interested. But so many reports have been circulated in regard to the object of my visit to the United States, I think it right to say a few words which may appear personal to myself. I have always a great delicacy in speaking of matters regarding myself; but as it has been stated, and I have no doubt, believed in some quarters, that I visit this country in an official capacity as a kind of ambassador, or perhaps even as a special envoy from the British Government, I wish to disabuse your minds of any such ideas. My visit to this country is, I may say, one of pleasure. I have had, as some of you are aware, large connections with America for some years. I have a great many good and warm friends in many parts of the United States, and I have long promised myself a visit to this great and rising country. I am sorry to say, however, that many obligations have interfered, and have prevented me from accomplishing this trip until this year. Lord John Russell, when he heard I was about to visit this country, was good enough to say that when here I might, in my intercourse with merchants and shipowners, have some conversation with them upon various commercial questions which the governments of both countries were very anxious to settle. Being largely connected with British shipping, and being so much interested in these questions, I readily consented to do what I possibly could to pave the way for the settlement of these various questions. His Lordship was good enough, also, to furnish me with the correspondence which had passed on the subject, so as to make me familiar with the position of these questions to the latest date, and further to write to Lord Lyons to afford me the necessary facilities. That is the only connection I have had with the British Government in relation to my visit. His Lordship knew that for many years past I have, in the House of Commons, devoted my attention almost exclusively to these great maritime questions; and he also knew that for the last two or three sessions of Parliament, both branches of the Legislature had been pleased to adopt many of the views I entertained in regard to maritime questions. There were some remarks made about me which I should not pass over, lest they may injure the great and good cause which I have voluntarily undertaken. It has been said that I am not at all competent for such a task, because I am "a self-taught and self-made man;" but I felt that my being self-taught and self-made would not make me any the less acceptable to the American people. It was also said that I have not sufficient knowledge to deal with these questions. Well, Mr. President and gentlemen, I am ignorant about many things, and the longer I live, the more ignorant I

feel myself to be; and in coming among you, I desired more to gain knowledge than to attempt to impart information. But if I am ignorant in general questions, I ought to be familiar with the questions on which I am about to address you this evening, because I have been from my boyhood connected with maritime affairs, and since I have been a member of the British Parliament, I have devoted myself almost exclusively to the understanding of these questions. It was doubted in some quarters if I was competent to deal with "the delicate and intricate questions of diplomacy." Well, gentlemen, however eager I may be to obtain knowledge, there is one kind of knowledge which I do not desire to obtain, and that is the knowledge of diplomacy as taught in too many courts of Europe. I think it would be well for mankind, and well for nations, if there were less of that intricate diplomacy and more of honest, straightfoward dealing between men and nations. I think I can best attain the objects I have in view by speaking to you as a plain man of business, addressing men of business in a great business city, and frankly pointing out what I conceive to be wrong in your laws, and as frankly pointing out what I conceive to be wrong in our own laws. That appears to me to be the best form of diplomacy which, to use a homely phrase, is prepared to give and take, and to do justice to all men. I think it hardly worth while to notice the remarks of a certain body of men known as the Ship-owners' Society of London. These associations in England are, in many instances, different from those here—from your Chambers of Commerce and Boards of Trade, which represent great commercial and maritime interests, and have great weight with the federal government. Too many of our associations in England are small political factions, got together ostensibly for the purpose of promoting the interest of particular branches of trades; but too often they ride hobbies of their own on some political dogmas. I question much if the "Ship-owners' Society of London" represent any body but themselves, and a few of the old school of shipowners whose views were such as those of our statesmen some 50 years ago, who desired that the trade of England should be carried on in British ships alone. Such, I fear, is too much the case with the so-called London Ship-owners' Society. This society met together in solemn conclave, (I dare say the members present were very few,) and passed a resolution declaring that they had "no confidence in me." The resolution pleased them, I dare say, and I do not think it injured me; and I call attention to it (for otherwise it is unworthy of notice) simply because it may have reached some parts of this country, and some gentlemen here might be disposed to attach too great weight to it. I assure you that the gentlemen who passed that resolution have, so far as their extreme political views are concerned, no influence whatever in the Parliament of England. With these preliminary remarks, allow me to state to you the objects which I have in view in meeting you this evening. I will speak first in reference to the liability of ship-owners, because that, perhaps, is one of the most important questions, and one which I think is not sufficiently well understood. I do not think that it is sufficiently known how the ship-owners of both countries stand with regard to each other on this question. As our respective laws now stand, any ship-owner of this country or of England, however wealthy he might be, may rise any morning and find himself a ruined man. That is a serious thing to consider. The law of England with regard to the responsibilities of

ship-owners limits the responsibility of our owners to the value of the ship and freight. In most of the other countries of Europe, also, the responsibility of the ship-owners is limited to that extent. This is also the law in this country—that is to say, it is so in this country as far as I understand the law. Speaking to American gentlemen, of course, I am speaking under correction; but so far as I understand the law of your country, your responsibility, in cases of collision, is also limited to the value of the ship and freight. That is to say, if one of your ships runs down another at sea, and you pay into your courts the value of the ship and freight, your responsibility cannot be carried beyond that value. That is all very well, so far as the laws of the respective countries stand. But if my ship runs down another ship in which an American subject is interested, and enters any of your ports, I am made responsible, in your courts, not merely for the value of the ship and freight, but I am made responsible exactly for whatever amount of damage may have been sustained through the collision brought about by my ship. So, therefore, if my ship runs down a vessel with cargo and freight on board to the extent of £200,000 sterling, I would be responsible for the whole. If your ships at sea run down any other American ship, or runs down a British ship, and it be brought into our courts, you are also responsible in our courts for the full amount of the damage which your ship caused. This arises from the fact, that our laws have jurisdiction only over British ships, and that your laws have jurisdiction over only American ships. Now, considering the vast trade which is carried on between the two countries, I think, at least I hope you may agree with me in the remarks I have ventured to make, and that as the legislatures of both countries have specified that the ship-owner's liability shall be limited, you will use your influence to extend that limitation to the vessels of both nations. A convention between the two countries should lay down certain principles in regard to liability which would be common to both; so that your responsibilities may be limited in our country in the same way and to the same extent as it is with our ships; and, on the other hand, if our ships are brought into your courts our responsibilities should be limited in the same way as you are. For my own part, I do not see any difficulty in the way of framing a convention to carry out this important and desirable object.

Under the head of responsibility, there are various points to which I desire to call your attention, and which have direct reference to this question of liability. First, with respect to collisions at sea. Now the causes of collision are various. Many collisions are, it is true, entirely beyond the control of man. There are others, however, which I believe might be avoided, if certain alterations were made in the maritime laws, or rather in the practice, of the respective countries. The first alteration I would desire to see made is, that the ships of England and America should be subjected to the same rule of the road at sea. It is very desirable that one rule of the road should be adopted at sea by all maritime nations; but I will now confine myself to England and America. Curious enough, we have, I might almost say, two rules of the road at sea to guide us. We have the Admiralty rule, founded, I believe, on the old maritime law. We have also a rule of the road somewhat different from that old maritime rule, as laid down by our shipping act of 1854. The difference is not very material between the two, but it is sufficient to lead at times

to very conflicting decisions in the Admiralty Court, often very unsatisfactory to the parties interested. I believe we will require to alter our rule of the road, for it will not do for us to have two laws, however slight the difference, with reference to the rule of the road at sea. Your rule or practice in America is much the same as the old maritime rule of the road, and with one or two modifications it might be desirable for England to adopt the rule of the road that is at present in use with American vessels. I will not now enter into the details of any particular rule. What I desire is, that you should go with me in endeavoring to bring about the opinion amongst ship-owners that there should be but *one rule* for the guidance of mariners in England and America.

May I now direct your attention to the use of lights at sea? In accordance with the powers granted to the Board of Trade by the act of 1854, we established a system of signal lights at sea, which I need not minutely describe; but that system of lights was considered so good that all the European nations, I believe, have now adopted it. You, in America, have also adopted that system so far as steamers are concerned, and your leading ship-owners have also adopted it. But it is not compulsory by your laws for your ship-owners, in all cases, to carry lights. Now, I am of opinion that it would be desirable that the law of America on this point should be made similar to that of England, with reference to the lights to be carried at sea; that American and English ships should be required to show the same lights.

If we had the same rule of the road, and displayed the same signal lights, there would be less collisions than now unfortunately occur. The great cause for surprise with me, when I take into consideration the enormous intercourse going on between the two countries, and the vast number of vessels which pass down the St. George's and English channels, is that many more collisions do not take place; and it is a fact which speaks well for the masters of American and English vessels, as proving the caution they must exercise to avoid collisions. These are the points which come under the head of liability. There are other points to which I am anxious to direct your attention, so that the laws of the two countries may be brought into harmony in regard to them. One is offences committed on board English and American ships. Very frequently offences are committed on board English ships entering your ports, and on board American ships entering our ports, over which the laws of the respective countries have no jurisdiction. Perhaps in serious cases, such as murders, murderous assaults, mutinies and the like, it may not be desirable that the laws of each country should have authority over the ships of the other; but it might be so arranged as that when such crimes were committed on board American vessels in or entering British ports, a British magistrate might have power to issue a warrant and commit the offender in the same way as if he were a British subject, and hand him over to his consul or minister to be sent home for trial, for I think it right that a man, for very heinous offences, should be sent home to the country to which he belongs, to be tried by its laws. But there are other cases which may be dealt with summarily, and many of them of a very vexatious character—for instance, petty larceny, cases of assault of a trivial kind, disputes between master and seamen, and so forth. Now I think it desirable that the laws of the two countries with reference to such cases, should be in harmony, so that at the request of the British

minister or consul in America, disputes arising on board British vessels in any of your ports, could be summarily dealt with in your courts, and disputes arising in American ships in any of our ports, could, at the request of your minister or consul, be dealt with the same as if the disputants were British subjects, always reserving that this be done at the request of the consuls and ministers of the respective countries. Then there is another point which has led to a great deal of trouble—desertions. Desertions are constantly taking place from our ships in your ports, and from American vessels in our ports. We have no jurisdiction over such cases of desertion from your ships, nor have you any jurisdiction over deserters from our ships. I think that when you consider that time is capital—and it is so to the ship-owner more, perhaps, than to any other man of business, because his property is liable to rapidly depreciate —when you remember that ships are sometimes detained a week, a fortnight, or a month on account of desertions, I think it is desirable that American seamen deserting in British ports should be summarily dealt with by our authorities in the same way as they would deal with British subjects under the same circumstances, and that deserters from our ships in your ports should be dealt with as if they were American seamen.

There is a great deal more in these matters than appears at the first glance. This seems to be a small matter, and some of you may think it unworthy of notice; but when you consider the vast intercourse which is carried on between the two countries, and the great number of desertions that occur, it becomes a matter of greater importance than it at first seems. I hope that it will receive your attention, so as to have the laws of the respective countries upon this point brought into perfect harmony. The next question to which I desire to direct your attention is a truly great one, and I have some delicacy in entering upon it; but it is one upon which I have felt very strongly for many years—it is the question of belligerent rights at sea. I wish to call your serious attention to it for a few moments. Direct reference is made to this important question in the report of the Merchant Shipping Committee of last session of Parliament. As you are aware, in that unfortunate war with Russia, England formed an alliance with France, by which it was agreed, among other things, that both nations wave their rights to confiscate enemy's goods found on board neutral ships, as also neutral good not contraband of war found in enemies' vessels. Now this mutual but provisional waiver of belligerent rights placed the allies in harmonious action, and practically countenanced the principle that free goods make free ships. Well, Mr. President, upon the return of peace, what was called the Declaration of Paris was agreed to by Austria, France, Great Britain, Sardinia, Prussia, Russia, and Turkey. By that declaration, also, privateering was abolished. The declaration was submitted to your government. Your government said, "We will agree to it, save and except the clause which states that privateering shall cease. It is," they said, "not the policy of America to maintain vast standing armies or navies. When we unfortunately go to war, we depend upon our people to protect us on shore, and upon our ship-owners to defend us on the water. If," they continued, "you will make *all private property exempt from capture at sea*, we will cease privateering; but why ask us to abolish it, while you maintain and send out your great ships-of-war, which are neither more nor less than privateers? They go forth to do exactly the same as the

ships which we license in time of war, to burn, plunder, and destroy." I think the argument of your government unanswerable. Some people say it is necessary to do such terrible things in order to put an end to war. I doubt it, and doubt it very much. I don't think that burning, plundering, and destroying private property ever brought war to an end; it only exasperates the people whose property is destroyed, and the anxiety to obtain prize money in the shape of that plunder only stimulates nations to war.

Therefore I heartily agree with the American government when they said "Make all private property exempt from capture at sea, and then we will agree that privateering shall cease." Now, gentlemen, I brought that question under the serious attention of the committee of the House of Commons, and I am happy to say that the committee adopted the following paragraph in their report, with only one dissentent voice, and that committee consisted of seventeen gentlemen, many of whom are most influential members of the British Parliament. The paragraph was as follows:—

"Your committee are aware that grave objections have been urged by high authorities against any further step in advance; but they cannot close this brief comment on so important a question without expressing a hope that your honorable House will agree with them in the opinion that, in the progress of civilization and in the cause of humanity, the time has arrived when all private property, not contraband of war, should be exempt from capture at sea."

I do not know that I ever in my life, wrote a paragraph of which I was prouder; and I am happy to say that the committee, with only one dissenting voice, agree with me in those great and noble principles. And I do fervently hope and pray that I may live to see those principles carried out. Everything in my power shall be done to bring about the time when we shall cease from plundering, when we shall cease from destroying, and when we shall cease from capturing the property of unoffending non-belligerents—the time when we shall treat private property on the ocean in the the same way as, for more than a century, private property on the land has been treated; because I believe that, by so doing, we are performing one of our great missions upon earth—to bring about peace and good will among nations. And I do trust that you will aid me in urging upon your government to adhere to the noble principle they laid down, and to be prepared to cease privateering when England is prepared to say that from this time forth all private property shall be exempt from capture on the ocean.

Now, gentlemen, there are two other questions to which I shall call your attention, although I have some hesitation in doing so, because we are likely not to be so unanimous upon them as upon the others which I have just laid before you. But, notwithstanding that, I know well that you will give me a generous hearing and an impartial consideration. The questions to which I now wish to direct your attention, are questions of policy, and it may take some time to have them settled, but I think it is well to hear both sides of a question; I think it is well that I should give you my views, even if they should differ from those of a majority of the gentlemen here; you may consider them over and take them for what they are worth.

One question is in regard to registration. As you are aware, we admit

to registration the ships of all nations. An American-built ship can come to any British port and be registered in the customs in the same way as any British-built ship. Here is an advantage you do not possess. We can register the ships we purchase from any nation. This is a great advantage to us. We have often taken the benefit of it; for we can at times find ships cheaper than those we could build. Now, you are prevented from doing so. Your law says, "You may invest your money in an American-built ship, but not in a ship built in any other country." Now that seems strange. I could understand it if they put on a duty for purposes of revenue, but to pass a law and say that you cannot invest your money where you please, is, I think, not wise policy on the part of your government. I think that you should at least be allowed to purchase whatever ships you please, and to purchase them where you please, and that you ought not to be prohibited from doing what you please with your capital. However, it is for you to consider whether or not you are losers by it.

The next question is a wider one—the coasting trade. As you are aware, we opened our ports to the shipping of all nations in 1850, and in 1854 we opened our entire coasting trade, so that since those dates your ships can enter all our ports in India, Australia, Canada, and the other provinces upon the same terms as British ships.

Now the great principle of all your most eminent statesmen—and you have had among them some of the greatest the world ever saw—their great principle was reciprocity, and they were willing to give to other nations what other nations gave to them. We gave you the coasting trade. You may say that it was not worth much in a small island like Great Britain, but you must remember that we have given you the vast trade of India, Australia, and Canada as well, which, you will admit, is an exceedingly important trade, and one which has been very valuable to your ships. Now, Mr. President, while we do this, you still maintain your coasting trade laws. You have prevented our ships from entering that trade, and you have done more. You still call the trade between New York and California "coasting trade;" and you go even further, and call the trade from New York to Aspinwall, with its transhipment over foreign soil, to San Francisco, "a coasting trade!"

In speaking to American gentlemen I know I speak to as wise and intelligent men as the world can produce—to a body of just men, and I ask is it fair to call those two trades which I have named coasting trade? It would be as fair to call the trade between England and Calcutta a coasting trade, whatever it may be in the opinion of those who cling to legal technicalities. I think you must admit that on the grounds of equity, the one trade is as much a coasting trade as the other. To be frank, I must tell you that a large number of influential men in England, and among them even our most advanced free traders, both in Parliament and out of it, feel very keenly about that question, and wonder that you should call that vast trade around Cape Horn with California a coasting trade.

Let me tell you how it stands. In the repeal of our Navigation Laws, a clause was maintained in that act which gave the power to the Queen, by order of the Council, to exclude the ships of non-reciprocating nations from the trade with the ports I have named. Our executive government, without reference to Parliament, has power to put that clause in force. I do not think the clause will be enforced; but if it should be see what

an injury it would be to your shipping. If the opposition to the liberal party get into power they may have it enforced, and they are very likely to be in power before long. It is true, they might not be able to keep it in force more than a year, but see what injury might be done to your shipping in that year. Suppose that the order came that no American ships in the ports of India, Canada, or Australia were to load cargoes in those ports for any port in Great Britain or in the British Possessions, see how many thousands of tons of shipping you would have suddenly locked up. Of course, it would enhance the price of produce to our consumers and raise the rates of freights in British vessels. Now, I am anxious to avoid the possibility of such an event, and I ask you to aid me by making concessions in your coasting trade. I do not think that by doing so you would suffer to the extent you suppose, or that England would gain to the extent she supposes by it, because I do not think any foreign nation can compete successfully with you for the trade along your own shores. If you can compete successfully with us in the trade I have named, why can you not in the coasting trade? Every nation can conduct its own coasting trade to the best advantage. England has got Swedes and Norwegians to compete with her for her coasting trade, which she has opened; but they have not done it, nor can they do it, because they cannot carry on that trade to advantage, unless they remove themselves and their families to our shores; and before you could compete with us in our coasting trade you would be obliged to come and live near the trade, and before we could compete successfully with you we would have to come and live with you.

But when I see your beautiful clippers of 1,000 and 2,000 tons, and your fine Baltimore clippers of 200 and 500 tons, all engaged in what your laws term the coasting trade, with exclusion of all chance of competition, I am compelled frankly to admit that I am amazed that you should have in this matter abandoned the principles of reciprocity, so ably advocated by your great statesmen, through an imaginary dread of English competition. I wish the ship-owners to bear in mind the fact that the larger the commerce the better it is for them; because the ship-owner is a mere carrier and does not create trade. The trade must be created or the ship-owner cannot exist. The freer the intercourse between nations the larger the development of the trade, and the greater the development of the trade the more employment for ship-owners. A free trade along your shores would tend materially to increase it.

But if you are not prepared to recommend the entire throwing open of the coasting trade, you ought at least, in common justice, to make some concessions, even if you had no higher reasons than to avoid the possibility of the British government closing against you the vast trade which you now enjoy with our Colonies and Possessions. But we have also concessions to make. While I don't think you deal justly or generously towards us in regard to the coasting trade, I don't think that we deal generously towards you in regard to the various taxes levied upon your vessels visiting English ports. You make us no charge for the lights shown upon your shores, and your lights are not inferior but equal to any. You act the part of a great people and say that it is the duty of an enlightened nation to place lights on her shores, not only for her own vessels but for all those ships that she invites to trade with her, and I, too, say that it is the duty of every nation to do so. England, while

she opens the coasting trade, still charges the vessels of other nations coming to her ports for the use of the lights on her coasts. She also charges them to maintain harbors, such as Dover, Ramsgate, Budlington, and other places which your ships cannot enter. England also charges you what is called local charges, at various ports, from which you derive no benefit whatever, and which are for purposes entirely municipal. She also charges you for pilotage, and under her compulsory pilotage law you are charged, whether you require to take a pilot or not. If you pass through Yarmouth Roads or the Motherbank, or various other places where your masters do not require pilots, your ships have pilotage levied on them. Now, I have been endeavoring to ascertain what the American ships pay in these ways. Of course it is impossible to arrive at the accurate amount; but I believe that your ships pay, in round numbers, for lights and compulsory pilotage, passing tolls and local charges, a sum close upon a million of dollars annually. Now if you were prepared to say that you would throw open your coasting trade, (which I think you ought to do,) or at least make some considerable concessions regarding it, I think that England, on the other hand, would be prepared to sweep away this system of charges. At all events, I, in the British Parliament, would do my best to have it done. I think, too, that you would get the best of the bargain when you got rid of paying this $1,000,000 annually, so that, as a matter of pounds, shillings, and pence, I think it deserves your attention.

In the early part of this century Great Britain passed a law that no produce could be taken from Great Britain to America except in British ships, while America passed a law that no produce could be carried from America to Great Britain except in American ships. Well, for some years they had the spectacle of American and British ships crosing each other in ballast, carrying out the theory of the respective governments of the day. Did the ship-owners gain by that? I think you will find it very difficult to argue that anybody gained by it. Say that the ship-owner of America got twenty dollars per ton for the goods carried to Great Britain, he got nothing for coming back, while if he got twelve dollars per ton one way, and twelve dollars per ton the other way, the consumers on each side of the Atlantic would have got their produce carried for eight dollars less per ton, and the ship-owner would have had four dollars more for carrying it. We got wiser in the course of time, and we found that such a law did not benefit anybody, not even the parties who applied for its enactment—the ship-owners of England and America of that day—while it injured all. The ship-owner soon found that even he, himself, was losing four dollars per ton on every voyage that he made across the Atlantic, while he was at the same time materially limiting his trade by limiting the amount of goods which he had to carry over. Now, we find these two great countries doing nearly the same thing in that vast inland lake trade which is opened and opening up, and which I cannot leave this country without seeing. What are we doing at the present moment? Here is a little map, and in looking over it I find that the Canadians have a large portion of the northern side of the lakes, where they conduct a very extensive trade, and the Americans have also a very large trade on the south side of the lakes. Well, now, as the law stand, we still maintain our colonial coasting trade —that is to say, while American ships can go into the intercolonial trade,

they cannot go from one of our ports on the lake to another. And by your laws a British ship cannot go from an American port to an American port in the lakes; so that, whatever may be the course of commerce and the nature of the trade, we have actually a law which says to the American ship-owner; "Thus far shalt thou go and no farther." And you, too, say the same to British ships. Now, is not that the very same system which our wise forefathers carried on across the Atlantic? Why should an American ship, if the exchange of commerce requires her to go between any British ports upon the lakes, have a legislative barrier set up which prevents her from going beyond a certain limit? And why should the American government have a similar law against our ships? Why should the respective governments set up such barriers as these? They must injure the consumers of the respective countries, and so far from benefiting the ship-owners they must do the reverse, for the same reason that applied to the trade of the Atlantic when it was carried on in the same way.

Well, of course, if your coasting trade was opened up, it would naturally be the duty of the British government, besides removing those heavy charges which I have named, to open up their coasting trade along the lakes and in the Colonies, and by that course I believe that not only would both nations be much benefited, but the ship-owners also would gain by it, and no one would suffer.

Now, gentlemen, these are the questions which I wish to lay before you, and which I hope will receive, at all events, your impartial consideration. And in dealing with them, you will do me the favor to separate them. I would not like you to mix up those questions on which we are likely to agree with those on which there may be a difference of opinion, because by doing so you may prevent the settlement of those questions which we all desire to see settled. I must tell you that, much as I desire to see your coasting trade thrown open, I am even more anxious to see a settlement of those first referred to; more especially the question of responsibility, which is a very great and important one, and which ought to be, and I hope will be, promptly settled. Mr. President, you were good enough to say that I might encroach upon the patience of the gentlemen present for one hour. I have occupied my time, and have finished, in however an imperfect manner, the subjects I desired to present to you for your consideration just as the hand reaches the hour. I hope I have presented them to you in a sufficiently clear, and I trust in an impartial manner. I hope that you will receive my observations in the spirit in which I have made them. My anxiety is to remove the rough edges which now cause friction between the two nations, and which often lead to rumors of war. Although I do not for a moment suppose that there is any likelihood of war between two such nations as England and America—nations speaking the same language, professing the same religion, sprung from the same race, and bound together by every tie that ought to bind men and nations together—still, there are often rumors of war, caused too often by some of these questions to which I have directed your attention this evening, and which do an immense amount of injury to the people of the two countries, by retarding, for the time being, free intercourse and exchange of commodities. If my friendly visit to the States can bring about a harmony between the laws of the two countries, so as to prevent the constant irritation arising

on both sides of the Atlantic—if I can, by any humble words of mine, aid in throwing oil upon the troubled water, then my visit will not have been made in vain. I hope, therefore, Mr. President and gentlemen, that, though I come not before you as a diplomatist, but simply as a man of business, you will give your best consideration to the imperfect words that I have addressed to you this evening, and that before long we may have these difficulties removed, and may thus, in our day and generation, do something to promote peace and good will between two great nations, and thus promote the interests and the happiness of mankind in general. With these remarks, I thank you warmly for the kind attention you have given me.

Art. IV.—VALUATION OF LIFE INSURANCE POLICIES.

NUMBER VIII.

The valuation of a life insurance policy depends on a correct table of mortality. We continue our collection of tables for the purpose of procuring an average of the best. Since the publication of the experience of the seventeen London life offices, the Eagle Insurance Company has added its experience to the others. This extends over forty-four years, from 1807 to 1851. The deaths in that time amounted to 2,874, and the number of persons exposed to death for a single year amounted to 123,719. This is nearly one-half of the number in the Equitable Society, and the time being more than half as long, the report is of much value. We have taken each decade of the living and the dying, interpolated them for each year by the method of differences, then obtained the ratio and the rates of mortality, and then adjusted these by taking the geometrical mean of five consecutive ratios as the true ratio—all in the manner before explained—the results are to be found in the second column of the table at the end of this article. We are indebted for these materials to Mr. Homans of the Mutual Life Insurance Company of New York.

The Economic Society of London, which was one of the seventeen companies that contributed a part of its experience to the London actuaries in 1840, has published the expectation of life according to its experience on lives, and also on policies. These expectations are not adjusted, and the anomalies at each separate age are very large, as is usual in the limited experience of life offices. To adjust them we proceeded as follows:—From the expectation of life we obtained first the rate of mortality at each single age; then assuming the living to be of the same age as in the Eagle office, obtained the dying for each year of life, then collected the results for each decade, and then proceeded as before to determine the adjusted rate of mortality at every period of life. These results for lives and policies are inserted in the third and fourth columns of the table below. Both agree almost exactly at all ages, showing how nearly the results for persons and for policies correspond with each other. The number of deaths in the Economic was only 1,282, which renders the table less valuable than the Eagle's, but as the company is old, the

rates of mortality are not without value. We are indebted for these materials also to Mr. Homans.

The Gotha Insurance Bank of Germany, though a recent company, has had a very large and flourishing business. In thirty years, from 1829 to 1858, it has had a larger experience than the Equitable after a duration of seventy years. The number of deaths was 6,779, and of the living 371,131. As more of the members were recently admitted, and the average length of each insurance shorter, the result is not so valuable. This is made manifest from internal evidence in the report it has published. The rate of mortality at the younger ages, when the new members are first admitted, is very low—lower than in any other large company, and not more than one-half of the amount in American offices. Thus, under the age of twenty-six, there were only 12 deaths out of 2,833 living, while the Mutual Life at New York has had 39 out of 3,618, and the Mutual Benefit 29 out of 2,598, and the New York Life 10 out of 985. The whole experience of the Gotha is as follows:—

Age.	Living.	Dying.	Age.	Living.	Dying.
15-25	2,833	12	56-65.....	62,525	1,931
26-35.....	52,227	390	66-75.....	17,089	1,216
36-45.....	120,893	1,186	76-85.....	1,843	255
46-55.....	113,997	1,831	86-90.....	24	8

We have constructed a table in the manner before described from these numbers, and the rate of mortality at each age forms the fifth column of the table below. At the middle and later ages this table is founded on so large an experience that it deserves much estimation.

To these tables of English and German offices we now add, in column sixth, the mortality of the Mutual Life Insurance Company of New York, as published by their actuary at the end of fifteen years' experience. The number of deaths on which this table is based is 750, and the living amounted to 68,618. These numbers are considerable, but the average duration of their policies has been so short that it lessens very much the value of the resulting rate of mortality. The members have too recently come from the examination of the physician, who had excluded all who were not in perfect health. The past fifteen years cannot for this reason be a good guide for the next fifteen, into which many of the members entered in impaired health, or with broken constitutions, perhaps in the last stages of some fatal disease which must soon terminate their lives and their policies. We shall not hesitate, however, to give this table considerable weight in our proposed combination, because it is American; more for this reason than for its intrinsic merits. The adjustments having been carefully made, and evidently by a mathematical formula, we have not readjusted the table by the method of geometrical averages, which in this case would not have corrected errors, but introduced them. With this report of the Mutual Life of New York we have combined the statement of the Mutual Benefit of New Jersey, whose experience has been published for thirteen years. The deaths in both companies amount to 1,387, but the joint table has the same defect as the former; both extend over too short a period, have too many new members who have been recently examined by the doctor and pronounced sound and well; but as the numbers are larger than before, the joint table deserves to have more weight than the first.

In constructing a table from these materials we united the numbers under 20 with those under 30, and interpolated for the two decades together, on account of the large mortality among the youngest members. Otherwise an excessive mortality, that we regard accidental and possibly due to the California risks taken by the companies, would have showed itself between 15 and 20, which would have been quite anomalous and unusual. The table is in column seventh at the end of this article.

To these two reports which end in 1858, we have united the experience of all the companies doing business in Massachusetts during the year 1859, as published by the Insurance Commissioner of that State. To these we have added the New York Life for fourteen years, (which has been kindly supplied us by the officers of that company,) and also the Southern Mutual for ten years. This last company does its business below the latitude where our offices consider it safe to take risks at the ordinary premiums, but as its mortality has been less than the Carlisle, no objection can be taken to this addition.

The particulars furnished from all these sources make up a large number of living and dying, but for the reasons given before, and for internal evidence in the reports themselves, we do not consider them entitled to a large weight in anticipating the future mortality of our American companies. Here is a summary of all, in the form which we used them, the decades being taken from 26 to 35, etc., and not from 20 to 30. From the Mutual Life we have deducted their California risks, as published by Mr. Gill in 1851:—

	Living.					Dying.				
Ages.	Mutual Life.	Mutual Benefit.	New York.	Massachs'ts.	South'rn Mutual.	Mu. Life.	Mu. Ben.	New York.	Massachs'ts.	So. Mu.
Under 25....	3,476	2,598	985	2,187	161	32	29	10	7	1
26 to 35....	22,948	16,136	7,618	12,683	969	207	159	69	99	10
36 to 45....	26,836	21,634	10,351	17,760	1,197	242	221	107	120	13
46 to 55....	11,963	10,785	4,998	10,280	537	159	143	74	123	6
56 to 65....	2,634	2,938	1,266	2,941	80	74	66	30	60	3
66 to 75....	241	417	116	441	3	9	19	12	15	..
76 to 86....	7	9	....	44	....	1	...	..	6	..
Total....	68,115	54,467	25,334	46,336	2,947	724	637	302	430	33

In all these companies, except the New York Life and the Southern Mutual, there is a singular depression of the mortality between thirty-five and forty-five. It shows itself in the table we have constructed from the total numbers, (column eighth,) and has been noticed by Mr. Homans, in his report for the New York Mutual. As it is not to be found in the experience at Gotha or London, nor in any of the usual life tables except Mr. Finlaison's, we have supposed it to be the result of incomplete experience, and therefore accidental. But as it appears in the Massachusetts report, as well as in the largest companies of New York and New Jersey, the singularity is very remarkable. We shall await with anxiety the publications of our other American companies, which are soon to appear under the auspices of the convention that recently assembled at New York, and shall then be better able to judge whether the apparent anomaly is due to the California risks, or some other such cause, or is a peculiarity of our American life offices. We do not doubt that it will disappear, for we have the greatest faith in the uniformity of living phe-

nomena and laws of mortality in all countries and nations. Variations in the amount of mortality are to be expected with the climate, habits, vices, and condition of the people, but the law of mortality determining the comparative amount at different ages is probably permanent and universal. The law may be complex, more so even than the transcendental formulæ of Gompertz and Edwards indicate; but we believe there is such a law, and that our American experience will, in the end, conform to it.

The Friendly Societies in Great Britain are similar in many respects to the life offices. Both admit only healthy persons, and both agree to pay a certain sum on the death of the member. The number of these Friendly Societies is very large, and their experience would seem to be quite valuable. They are required by various acts of Parliament to make certain returns to the government for every five years, and Mr. Neison has used these returns in the construction of various tables of mortality for different classes of the people.

The numbers in these returns are very large, but we do not think they deserve much confidence. They are liable to all the defects of the experience of the life offices without their claims to accuracy, either as to age or numbers or completeness. The members being of the humbler classes, many of them do not know their age; and the importance of stating this exactly is not very great, as the amount to be paid at death is small and insignificant. The records are, in all probability, kept carelessly; the copies from these reports being made to government, there is little motive to accuracy and care; the returns are only made every five years, and omissions and errors will occur in so long a period that would have been corrected in a shorter time; the disagreements in the results obtained by Mr. Ansell and by Mr. Neison from successive returns is very great; and the improbable conclusions deduced by the latter are evidence of defects in the reports on which they are founded. We shall give, however, two of Mr. Neison's tables, one for the combined mortality of town, city, and rural districts in England, and one for Scotland—tables F. and M. in his collection—but we shall allow them a small weight in our proposed combination. They will be found in columns eight and nine at the end of this article.

Mr. Neison has published a table of mortality deduced from the registrar-general's reports for England and Wales for 1838 to 1841, omitting the first year of the registration, so as to eliminate the probable errors and deficiencies of the first report. The result for males is inserted in the last column of our table, and is worthy of much confidence.

This completes the materials we propose to use to form an average table. They comprise the best tables accessible to us, and we have been aided by the librarians of several of our best American libraries, by the contributions of Mr. James, Actuary of the Girard Office of Philadelphia, Mr. Homans, of the Mutual Life of New York, Mr. Freeman, of the New York Life, and Mr. Wright, of the Massachusetts Commission; to all of whom we return our thanks. The tables are ample for our purpose, and cannot fail to give a most satisfactory mean, free from the errors and anomalies of each.

Age.	Eagle Exper.	Econ'mic, Lives.	Ecn'mic, Policies.	Gotha Exper.	Mutual Life.	Mu. Life & Ben.	Several Americ'n.	English F. S.	Scot. F. S.	England, '38 to '41.
15	.0087	.0064	.0064	.0032	.0076	.0090	.0076	.0042	.0041	.0058
16	88	68	68	32	77	91	78	50	50	62
17	89	71	71	33	77	92	80	57	57	66
18	89	74	75	38	78	92	82	62	62	71
19	89	76	79	34	78	93	84	66	67	75
20	89	78	82	35	79	94	85	68	70	78
21	89	79	85	36	80	95	86	68	72	82
22	90	79	85	39	80	95	87	68	74	85
23	91	79	84	43	81	96	88	69	75	88
24	93	78	83	48	82	96	89	69	75	91
25	95	77	81	53	83	97	89	70	75	94
26	97	76	79	58	83	97	90	71	75	96
27	100	75	78	63	84	97	91	72	75	98
28	103	75	76	67	85	98	91	73	76	100
29	106	74	75	69	86	98	91	74	77	101
30	110	74	74	71	87	98	91	76	79	102
31	114	74	73	73	87	99	90	77	82	104
32	118	74	73	75	88	99	90	78	85	105
33	122	75	74	77	89	99	89	80	88	106
34	126	77	76	79	90	99	89	81	92	108
35	130	80	78	81	91	99	89	83	96	109
36	134	83	80	84	92	99	89	85	100	111
37	138	86	83	86	92	99	88	86	103	113
38	141	89	86	89	93	99	88	89	106	116
39	145	92	90	92	93	99	88	91	107	118
40	149	96	94	95	93	98	89	94	108	121
41	153	100	99	98	93	98	90	97	107	124
42	157	104	104	101	94	98	92	100	109	128
43	161	109	109	104	95	98	94	104	112	132
44	165	115	115	108	97	98	97	108	118	136
45	170	122	122	113	101	99	100	112	125	141
46	176	129	130	119	107	100	105	117	134	145
47	182	137	138	125	113	102	111	122	142	151
48	188	146	147	132	120	105	117	128	149	156
49	194	156	157	141	128	109	124	135	154	162
50	201	168	169	150	134	115	131	143	158	168
51	209	180	182	160	140	123	140	151	161	176
52	218	195	197	171	145	132	150	160	166	184
53	227	211	214	183	151	144	162	170	175	193
54	237	230	233	196	158	156	175	179	186	203
55	249	252	255	209	167	170	190	190	200	215
56	261	276	280	223	176	185	205	201	216	226
57	274	304	308	239	188	202	221	212	234	239
58	290	332	337	255	202	220	236	224	252	253
59	307	358	364	274	218	240	252	237	271	268
60	327	381	389	297	236	261	271	251	291	285
61	348	400	410	322	257	283	291	265	312	304
62	371	416	428	352	280	303	311	283	331	324
63	394	432	446	385	306	329	331	303	350	347
64	418	449	464	420	334	349	351	327	368	372
65	443	468	483	458	366	368	368	355	384	400
66	470	489	5 4	498	400	385	383	386	400	428
67	500	512	527	541	438	399	398	422	420	461
68	534	539	552	588	483	410	414	461	445	495
69	572	582	596	638	533	422	436	505	475	533
70	614	628	644	694	594	438	458	553	510	573
71	663	678	695	754	660	457	484	605	549	620
72	717	732	751	819	730	484	514	652	581	669
73	776	796	811	896	820	514	555	695	609	724
74	843	853	876	982	885	544	598	733	630	783
75	922	921	946	1078	956	575	658	766	645	825

Age.	Eagle Exper.	Econ'mic, Lives.	Econ'mic, Policies.	Gotha Exper.	Mutual Life.	Mu. Life & Ben.	Several Americ'n.	English F. S.	Scot. F. S.	England, '34 to '41.
76	1000	995	1022	1188	1032	628	736	794	654	922
77	1094	1075	1104	1307	1114	692	847	834	698	1004
78	1187	1161	1191	1428	1203	772	977	883	777	1092
79	1270	1254	1287	1556	1299	879	1143	943	890	1190
80	134	136	139	170	140	100	134	101	104	129
81	140	146	150	183	151	110	154	111	122	140
82	146	158	162	196	163	121	172	117	138	151
83	150	171	175	209	176	133	189	122	150	162
84	154	185	189	222	190	146	204	127	160	174
85	160	200	204	235	205	161	220	130	166	187
86	170	216	220	248	221	177	238	132	170	201
87	182	233	238	262	239	195	257	140	178	218
88	199	252	257	279	259	215	278	154	190	231
89	220	272	278	297	280	236	300	174	205	247
90	242	294	300	315	302	259	324	200	225	263
91	266	318	324	340	326	285	350	232	249	279
92	293	343	350	367	352	313	378	266	274	296
93	322	370	378	396	380	344	408	293	301	311
94	354	400	408	428	410	378	441	330	331	328
95	389	432	441	462	443	416	476	364	362	341
96	428	466	476	499	478	458	514	396	395	356
97	470	502	514	539	516	504	554	452	451	366
98	517	543	555	582	557	554	596	529	529	375
99	569	586	600	628	602	609	646	613	613	381

Art. V.—TRADE WINDS—EVAPORATION IN THEIR CIRCUIT.

THE TRADE WINDS—EVAPORATION IN THEIR CIRCUIT—HIGH RIDGES CAUSE THE CONDENSATION OF THE CLOUDS, AND THUS THE RIVERS OF NORTH AND SOUTH AMERICA—THE APPALACHIAN RIDGE THE DIVIDING LINE OF WATER COURSES DRAINING INTO THE ATLANTIC.

In the October number of *Hunt's Merchants' Magazine* we endeavored to present a view of the "Vertical Topography of the Valleys of the St. Lawrence, Ohio, and Mississippi," to prove that the drainage of the States of Ohio, Indiana, and Illinois, from east to west, exceeded 1,000 feet, and from north to south 300 to 400 feet. That from Chicago, situated 610 feet above tide, the descent to Cairo, at the mouth of the Ohio River, 275 feet above tide, is 335 feet; while the ascent from that place, by the Ohio River, to Pittsburg, is 425 feet, and from the summit of the Alleghany River the fall to Pittsburg is 788 feet, and as a consequence the States of Ohio, Indiana, and Illinois could not be "one vast mass of peat —a semi-liquid of mud," as lately alleged by the Hamilton (U. C.) *Spectator*. That from the annual average heat and moisture in these States, they were peculiarly adapted to raise wheat and Indian corn; from the same cause, so also were the States of Michigan, Wisconsin, and the States formed and forming to the west of the Mississippi, on what is called the "*Grand Plateau of the Missouri*," from the fact that this immense region of waving prairie—the deposit of animal and vegetable manures for ages—have earlier springs, and are longer free from frosts, than the Valley of the St. Lawrence.

The view taken from Blodget's Climatology, in October, is more than confirmed by Professor Maury's "Physical Geography of the sea," (page 75,) where he shows the effect of the N. E. and S. E. trade winds on the

American content. He states that the N. E. winds and the S. E. winds draw up water in the tropics, and produce the calms, or, as they are called, the "Doldrun Seas," on the Equator.

The N. E. trades are precipitated against the Andes, and, by the condensation of the clouds, is produced the Amazon and rivers of South America; and from the S. E. trade winds we have the trade winds of North America. After devoting twenty pages to the atmosphere, evaporation, and condensation, he remarks, (page 89,)—"By reasoning in this manner, upon such facts, we are led to the conclusion that our rivers are supplied with their waters principally from the trade winds region. The extra tropical northern rivers from the south trades, and the extra tropical southern rivers from the northern trade winds, for the trade winds are the evaporating winds." The effect of the tropical trade winds on the climate and the productions of the United States is peculiar. These trade winds, rushing to the Atlantic from the north and south poles, between 10 and 30 degrees—see Maury's map, page 75—are driven from the east to the west across the Atlantic. They take up an immense volume of water by evaporation. This water, in clouds, from the north tropics, is, we repeat, precipitated against the Andes, and, by their condensation, form the Amazon, the La Plata, and the Orinoco rivers.

The S. E. trades, on the south of the equator, are forced with a gyratory motion to the northern part of the United States. They are first impeded in their course by the mountains of Vera Cruz and Mexico—a continuation of the Andes to the Rocky Mountains—turning them against the mountains of Tennessee and North Carolina, having an elevation of 6,842 feet above tide, at near the commencement of the Appalachian Ridge, *or back-bone of the United States*, with its several spurs; the whole range of mountains, starting east of the Mississippi, laying in a N. E. direction and S. W. course from Mars' Hill in the east corner of Maine, and parallel to the Atlantic Ocean and Gulf Stream.

This range of mountains have an average altitude of half a mile, or 2,620 feet above tide, with the exception of the mountains of North Carolina, Mount Fillmore, 6,842 feet above tide; Mounts Marcy and McIntyre, 5,467 feet above tide, in New York; and Mount Washington, of New Hampshire, 6,428 feet above tide.

The first precipitation of water, in quantities, is in the gulf or cotton States. In Alabama we have the enormous quantity of 63 inches annually; in west Tennessee, northern and southern Georgia, with Mississippi, Louisiana, and Arkansas, 55 inches. The average fall per annum tapers off to 48 inches in South Carolina; the fall in Virginia and Maryland is 45 inches; in the Middle States, 45 to 40 inches; in New England, 40 to 36 inches, as we proceed north to New Brunswick.

The fall of rain is much greater on the east side of the Appalachian Ridge than on the west side—say as 4 or 5 to 1—if estimated by the rivers they produce, and the square miles drained.

The clouds, or warm body of tropical exhalations, appear, in part, to be guided in their course to the north and northeast by the Sierra Madre and the Ozark Hills; the latter 2,000 feet above tide, commencing in the S. W. part of Arkansas; forming the Red River and the several streams that fall into the Mississippi and the Missouri, with the *grand plateau* of this name. Here the clouds encounter the north and northwest winds on this water-shed, the *divide* between the waters flowing into the Polar seas to the north, the Mississippi to the south, and the St.

Lawrence to the east, and, on a higher ridge, the Columbia River to the west.

The rise of this plateau (1,570 feet above tide) from lakes Michigan and Superior to the falls of the Missouri, and near to the portage to the Columbia River, is 1,350 feet, or about eighteen inches to the mile. The *divide*, or lowest summit, that can be conveniently passed over, through the Rocky Mountains, to the head-waters of the Columbia River, is 5,500 feet above tide, from whence the waters of this stream and its branches drain into the Pacific at Astoria, with a distance for a northern railway of say 750 miles, and it is a very direct line from Chicago to the *divide* of 1,100 to 1,200, or say 1,850 to 1,950 miles. This line was first pointed out by Mr. Edwin T. Johnson, C. E., in his able report of 1853, "of its general character and relative merits," and was corroborated, in a remarkable manner, by the "Report, Explorations, and Surveys," made by Governor Stewart, 1854, under the direction of the Secretary of War. See Ex. Doc. No. 91, 33d Congress, 2d session.

This line British and American capitalists should unite in constructing forthwith by private enterprise. It may be aided only by alternate sections of land, to be donated by the United States Government. This important and necessary steam communication to Japan and China is needed, as well as by the Amoor River to St. Petersburg, and thus to belt the world with steam. Nearly two-thirds the distance from Quebec and Portland, or say from the Atlantic to the Pacific, is accomplished, leaving but about 1,400 miles of railway to be constructed. Of this distance, we learn 230 miles, from Cedar Rapids to the Missouri River, to strike the same in latitude 42° at Decatur, about 50 miles above Council Bluffs, is secured by grants of land from the General Government to the State of Iowa, and by this State to the Cedar Rapids and Missouri River Railroad Company. No doubt the General Government will grant alternate sections of — miles by — miles on each side of the proposed road to Astoria and the Straits of Fucca, with a branch on the Pacific to San Francisco, as well as by the South Pass to the same point. With the proposed route completed, to use steam on land three-fourths of the distance round the world, and one-fourth on water, a trip could be made round the globe in 45 days. Will this be done? Yes. When? In this fast age it should not exceed 15 years.

But we have digressed. We will return to the drainage from the Appalachian Ridge to the Atlantic, which commences in Tennessee and proceeds to the northeast corner of Maine and New Brunswick. Starting from and east of the Father of Waters, we have, among the main rivers in the United States falling into the Gulf of Mexico, the Pearl, the Alabama, the Tombigby, the Chattahooche, and the Appalachicola. Draining into the Atlantic, we have the St. John's, the Altamaha, the Savannah, the Santee, the Pedees, the Cape Fear, the Neuse, the Pimlico, and the James rivers, up to the Chesapeake Bay. This bay is formed by the Potomac and the Susquehanna and its affluents, draining the east side of the Alleghany Ridge, up to the Delaware Bay, formed by the Schuylkill, the Lehigh, and the Delaware rivers. Then comes the noble Hudson, or *North River*, as it breaks through the Alleghany Ridge at the Highlands, and is the only stream that forces tide-waters north through this ridge, 170 miles from the ocean. At this point it receives the Mohawk River, also having pierced the Alleghany Ridge at the Little Falls —1,488 feet above tide—in a remarkable manner. The Mohawk takes

its rise near the Black River, a stream falling into Lake Ontario, and in its course south, by the town of Rome, it mingles its waters, in the spring, with those of Wood Creek, draining, by the Oneida Lake and Oswego River, into Lake Ontario and the St. Lawrence.

The sources of the Hudson River are to be found in the northeast part of the State, on mounts Marcy, McIntyre, and Adirondac, while from the same mountains the Racket River drains into the St. Lawrence on the north, and the Saranac River on the east into Lake Champlain, situated 96 feet above tide, that falls into the St. Lawrence by the St. John's River.

A dam of 150 feet high across the North River from Catskill to the town of Hudson, will turn the waters of this river, with those of the Mohawk, into the St Lawrence, by the Champlain Valley.

Proceeding north and eastward, we have the Connecticut River, running south from near the head-waters of the St. Francis into the Sound. Then we have the Blackstone, the Merrimac, the Kennebec, the Penobscot, and the St. Croix River, our northeast boundary.

The water-shed, draining into the St. Lawrence River, is very limited, until we come to Central New York, or the west side of the Alleghany Ridge. Here we have the Seneca and Oswego rivers, the outlet of seven considerable inland lakes. Then comes the Genesee River, heading 1,488 feet above tide, near the State line of Pennsylvania, also falling into Lake Ontario. The Alleghany River drains southwest from a spur of this mountain into the Ohio River, and thus into the Gulf of Mexico. So does the Great and Little Kanawha; also the Kentucky, the Green, the Cumberland, and the Tennessee rivers, all small rivers as compared with those draining from the east side of the Appalachian Ridge direct into the Atlantic, as above stated.

The land on the east side of the Appalachian Ridge, to near the summit, is generally of good quality. The amount of water-power, and the supply of coal for fuel and to produce steam-power, is incalculable. So also is the number of artisans, manufacturers, and commercial population on the east side of this ridge it is capable to sustain and employ. So also the millions of agriculturists on our Western prairies, it will require to feed them, with our Southern planters and their operatives. The cotton cloth, and the cotton required to make it, will give full employment to the population of the South to produce the cotton, and to the operatives of the North to manufacture the cotton cloth.

There should be, therefore, no antagonism, and there will not be with sound thinking men, to the North, the South, or the West, as to the class of labor in each region. They are all dependent on each other, and bound to each other, by noble lakes, rivers, canals, and railroads.

The West, to reach the seaboard, to supply the sea coast and foreign operatives and artisans, will command the peace, and enforce it, as between the North and the South. And he who has read the late work of Mr. T. P. Kettell, entitled "*Wealth of the South and the Profits of the North*," must be convinced that there should be no hostile feelings engendered by profligate and corrupt politicians as between the labor of one region and the other.

We are all dependent on, and necessary to, each other, from the peculiar formation of our country, which we have endeavored, in this and our last article, to present for consideration. J. E. B.

Art. VI.—OUR TRADE WITH THE WEST.

THE following table shows the extent and condition of the several works over which the Western trade with the Atlantic is carried:—

BALTIMORE AND OHIO RAILROAD.

Years.	Total tonnage.	Tonnage east.	Tonnage west.	Receipts from freights.	Receipts from passengers.	Total receipts.
1855..	626,589	65,047	39,225	$3,103,154 85	$608,299 00	$3,711,453 85
1856..	833,938	145,549	40,164	3,712,953 31	672,999 56	4,385,951 87
1857..	895,401	158,597	67,887	3,884,736 46	732,262 49	4,616,998 95
1858..	800,589	170,084	54,774	3,174,607 69	681,878 10	3,856,485 79
1854..	897,496	135,127	66,470	2,928,411 16	690,207 20	3,613,618 45
Total..	4,054,013	674,404	288,595	16,803,802 47	3,385,646 35	20,284,503 91
Aver'ge	810,802	134,880	57,705	3,360,772 49	677,129 27	4,056,900 78

PENNSYLVANIA CENTRAL RAILROAD.

1855..	465,006	103,407	65,566	$2,749,695 24	$1,240,628 28	$4,270,015 56
1856..	454,042	88,709	76,456	3,175,701 56	1,198,925 40	4,720,015 71
1857..	826,518	44,905	77,168	3,196,046 76	1,244,828 40	4,855,669 76
1858..	1,045,889	141,268	79,942	3,262,228 01	1,345,735 02	5,155,330 65
1859..	1,170,240	129,767	103,839	3,419,494 10	1,419,608 31	5,362,355 21
Total..	3,862,745	561,054	402,970	15,803,165 67	6,447,820 31	22,393,564 92
Aver'ge	772,541	112,210	80,544	3,160,633 13	1,489,164 06	4,478,712 98

NEW YORK AND ERIE RAILROAD.

1855..	842,054	113,330	42,138	$3,571,711 96	$1,698,670 15	$5,488,993 37
1856..	816,964	152,105	78,622	4,545,981 86	1,856,674 66	6,349,050 15
1857..	978,069	157,828	80,271	4,097,601 12	1,495,360 96	5,742,606 51
1858..	816,964	224,886	61,069	3,343,310 77	1,182,258 27	5,151,606 43
1859..	869,072	200,000	60,000	3,108,248 04	1,154,033 54	4,394,527 84
Total..	4,328,123	858,149	322,100	19,166,653 80	7,165,047 51	27,126,784 30
Aver'ge	864,624	171,629	64,422	3,833,330 76	1,433,009 50	5,423,336 86

NEW YORK CENTRAL RAILROAD.

1855..	670,073	165,915	75,640	$3,187,602 90	$3,242,229 19	$6,563,581 14
1856..	776,112	172,781	80,507	4,271,189 20	3,229,751 86	7,773,069 50
1857..	838,741	179,647	113,230	4,559,276 88	3,147,686 86	8,027,251 41
1858..	765,407	229,278	83,133	3,700,270 44	2,532,646 55	6,528,412 70
1859..	834,319	234,241	113,833	3,337,148 82	2,566,369 71	6,200,848 82
Total..	3,884,702	981,862	566,343	19,157,688 24	14,758,674 17	35,093,163 87
Aver'ge	776,940	196,372	113,224	3,831,537 64	2,951,734 83	7,014,682 51

NEW YORK CANALS.

Years.	Total tonnage.	Tonnage east.	Tonnage west.	Receipts from freights.	Lumber, tons.	Agric'l produce, tons.
1855..	4,222,617	1,895,593	504,696	$2,805,077	1,534,954	1,047,344
1856..	4,111,082	2,123,469	573,733	2,748,203	1,478,674	1,192,673
1857..	3,444,061	1,617,187	340,176	2,045,641	1,364,662	767,370
1858..	3,665,192	1,985,142	287,072	2,110,754	1,232,968	1,279,891
1859..	3,781,684	2,121,672	317,459	1,723,945	1,542,036	816,784
Total..	19,224,636	9,633,083	2,023,136	$11,433,430	7,173,294	5,104,052
Aver'ge	3,844,929	1,926,616	404,625	2,286,684	.....	.....

In the foregoing detail it will be seen that the increase on the Baltimore and Ohio Road has been steady, with a pretty fair inference that it will continue until it has reached its ultimate capacity. Its average "through" tonnage (192,585 tons per year) is equal to 23¾ per cent of

the entire tonnage of the road; and of the amount in the easterly direction we have 16⅝ per cent, while that to the West is 7¼. In the receipts from freight, the average presents a favorable comparison with either of its competitors, and when it is understood that the connections with the Ohio have only been completed within the last five years, it must be regarded as a work of importance. It is, however, a Baltimore conception —a Baltimore enterprise—and under Baltimore management it has cost less money—it has encountered more difficulty, and is in better condition than some of its prominent competitors. At its western terminus, it has three connections with the river, and at the eastern end its connection with the Chesapeake Bay, and thence with the ocean—with the Eastern market, inwardly or outwardly—brings it prominently before the trading community.

In the Pennsylvania Central we have also, in the detail, the evidence of its present and future importance. In the column presenting its annual tonnage, notwithstanding its initial condition—its want of connection—its increase in every department is without a parallel. Its through tonnage, (192,750 tons,) precisely the figures of its neighbor, is 24¼ per cent of the gross tonnage, and towards the East is 14 per cent; westward, 10¼. Its receipts from freight and from passengers are alike satisfactory, and if we view its position in relation to the trade of the West, we must recognize it, with its colleague, (the Sunbury and Erie,) now being built, as the only effective competitor to the Grand Trunk line through Canada. Its connection with the Pittsburg, Fort Wayne, and Chicago Railroad, and all the railroads diverging to the Ohio and the Mississippi rivers, together with 15,000 or more miles of river navigation, gives it a position to command the trade. But as this fact has not yet reached the drum of our ears, and our eyes and interests have been *fixed* in another direction; and as the people of the State have experienced the folly of their predecessors, if not the hurry of their cotemporaries, in conceiving—in locating—in building their works, without bringing them to the touchstone of experiment, we will submit the evidence, and ask the reader to determine by his eye, by his reason, or by his science, the truth of the position. We ask him to stand before the map of the country, and after fixing in his mind the location of New York, of Philadelphia, of Buffalo, and of Pittsburg; and after understanding that the trade of the lakes is the trade of the Ohio and the Mississippi rivers, and that we have made a *gridiron* of the intervening States to reach it; he will discover that the distance from any of the distributing points on the Mississippi is from *one-third* to *double* the distance from Pittsburg to Philadelphia. Then, by tracing the route by the lakes, it will be seen that the distance to Buffalo is equal, if not greater, than that by the river to Pittsburg; consequently, at the usual charges made upon a railroad, a lake, or a river, the cost for transporting a ton of produce from the Mississippi to Buffalo will be about the same as to the city of Philadelphia. From Buffalo to New York, by rail and river, the average cost is $9 44 per ton. From Philadelphia to New York, by canal, the cost is $1, or $2 66 per ton by railroad.

But as nature has given the position, and as the producer selects the route, it will not be necessary to pursue the detail. In the increased business we have the appreciation of the public, and in the cost of the work ($28,484,321, including the canal,) we have, besides the evidence

of a faithful management, $2,231,617 06 as the net receipt of the year. We have also an increase during the five years named of $1,092,339 65 in the gross receipts, and in the tonnage about 805,234 tons.

In the New York and Erie we have nothing from the figures to encourage a hope in the future. The falling off in the receipts being $2,125 88 more than the increase on the Pennsylvania Central, is at least an evidence of the extent of its capacity, if not the proof that its length, its location, its grades, and its gauge destroy its ability to sustain itself in a competing business. Its length, being 461 miles to Dunkirk, (108 miles greater than from Philadelphia to Pittsburg,) is of itself enough to determine the route of the traffic, and as the fact is sufficient to correct the impressions everywhere fixed on the mind of the public, by its officers and friends, in relation to the Pennsylvania route, we omit the argument on the *grades* and the *gauge*, and rest on the conviction that its *location* is the cause of its trouble. From New York to Pittsburg, via Philadelphia, the distance is 440 miles; thence to Cleveland 148, making 501 miles from Philadelphia to Cleveland; while from New York to Cleveland, via Dunkirk and Erie, we have 603 miles, leaving 102 miles in favor of Philadelphia. If, then, we take the average charge upon a railroad at 3 cents per ton per mile, we have from New York to Cleveland $18 09 per ton; while by way of Philadelphia and Pittsburg it would be $16 03, making a saving of $2 06 per ton. But as Cleveland is not in the line of the traffic, if we stop at Pittsburg the saving would be $7 50 per ton, and quite enough to determine the direction of the trade.

The Erie, therefore, having no just pretension to the trade of the West, nor is it in a condition to retain even the local traffic of the route, we leave it in the hands of its nurses, and without importuning the benevolent action of its friends in the stock market we hope it may be tenderly dealt with. We have no objection to its success, but we desire that its importance shall rest upon its works, and not upon that of its neighbors.

The New York Central is the next in our table, and as it is the only work of our State that has contributed to the object for which it was constructed, it may be viewed with more than common interest. It is located in the shortest pass between the lake and the river, and although saddled with several worthless "feeders," and threatened with legislative restrictions, it is the only dividend-paying work in the State. The length of the main stem is 298 miles. Including its branches, we have 555 miles to keep up and provide for, from the earnings of the main stem. But the State is the gainer, and as the canal must be sustained for the benefit of those who control it, it is but consistent to levy the deficit on the works that are prosperous; hence the schemes and clamors against the work.

In the business, however, of the contending works, during the last five years, we find on the average that the—

Agricultural produce on the canal was	38	per cent; on the railroad,	38¾	per cent.		
Lumber	"	"	40	"	"	3½ "
Manufactures	"	"	7	"	"	6½ "
Merchandise	"	"	7	"	"	18 "
Animals	"	"	..	"	"	22½ "
Other articles	"	"	21	"	"	8¾ "

Aggregate tonnage on the canal, 3,844,929 tons; railroad, 776,940 tons.

And in the business of the several railroads we discover the following results on the average business during the last five years:—

	Baltimore and Ohio.	Pennsylvania Central.	New York and Erie.	New York Central.
Receipts from freights.....p ct.	81¼	70	70¼	54¼
Receipts from passengers	16¼	30	26¼	41¼

But here, it will be understood, the several roads were worked under the system of equation, and of course the gradients on the distance were not permitted to influence the results on either the short or the low-graded roads. On the—

Baltimore and Ohio, on the gross receipts,	*fell off*		$97,835 40
Pennsylvania Central,	"	gained	1,092,339 65
New York and Erie,	"	*fell off*	1,094,465 53
New York Central,	"	*fell off*	362,732 32
New York Canals,	"	*fell off*	1,081,132 00

Before the "reformation," however, the Pennsylvania Central carried 365,006 tons, and received $6 69.76 cents per ton; and in 1859, it carried 1,170,240, at the rate of $2 91.33 cents per ton, making a difference of $3 78.43 per ton. On the Erie, in 1855, under the system of charging all it could get, it carried 842,054 tons, and received $4 24.16 per ton, while under the influence of the *reformation*, and after cutting off the dead-heads, the runners, &c.—and after dismissing the only scientific man in the bunch—it carried 869,072 tons, and received $3 57.68 cents per ton; but, as the reformer was modern in his notions, and as his work passed over the mountains, instead of through them, as did the children of Israel the Red Sea, he ran it into the *marshes*, and there it will stick, a monument to the genius and enterprise of its projectors.

Next in the catalogue we have our canals, and next to the Erie Railroad, "it is almost d——d by its friends." It went into operation in 1823, and since that period it has been saddled with thirteen others, about as useful as the *feeders* in and around our various improvements. It is located on the banks of the lake; is 350 miles long; has cost over $42,000,000; and is now superseded by the natural channel. During the last five years its tolls amounted to $10,051,730, while its thirteen feeders paid into the treasury but $1,381,894. The tonnage also foots up by the Erie and Champlain canals to the Hudson:—

Product of the forest	4,476,782	tons, paying	84.60	cents per ton.
Agricultural produce	3,908,021	"	95.84	"
Manufactures.....	288,969	"	39.15	"
Merchandise.....	77,552	"	189.01	"
Other articles.....	971,635	"	21.09	"
Total.....	9,722,959			

Averaging 1,944,591 tons per year, of which about 56 per cent passed through the Erie. Consequently, after separating the local tonnage, (about one-half of the whole,) we can see no just reason for crowding the work with lumber without an equivalent in the shape of toll; but, as the connection between the Ottawa River and George's Bay will be complete in the spring, and as the propellers, carrying 2,000 tons, will be enabled to make a trip from any of the ports on the lake to Liverpool in about the same time it is now made from Buffalo to New York, our only trouble will hereafter be to meet the interest on the $34,000,000

now hanging over the property of the State. Producers *will go* by the natural channels, and our debts *will cling* to our Empire citizens.

Our trade with the West must therefore be reached through Pennsylvania, and the sooner we purchase the Delaware and Raritan Canal, and make it a free channel, the sooner we will secure the trade. J. M. S.

Art. VII.—CALIFORNIA—ITS POLITICAL ECONOMY.

SUSPENSION OF THE BANKS IN 1857—THEIR STRONGHOLD ON THE PEOPLE—NO SALUTARY REFORM INSTITUTED BY THE EXPERIENCE OF 1857—BANKS SHOULD LOAN MONEY, NOT CREDIT—EVERY DOLLAR OF BANKRUPTCY IN THE CURRENCY MAKES TEN DOLLARS OF BANKRUPTCIES IN THE BODY POLITIC—GOLD AND SILVER ARE THE ONLY PROPER BASIS FOR BANKING—LIABILITIES OF THE FEDERAL GOVERNMENT TO CALIFORNIA, $250,000,000.

THE suspension of the banks in the old States in the month of October, 1857, in time of peace with all the world, in a year of unexampled good crops of grain, cotton, and every agricultural staple, illustrates their means of cash redemption. After receiving an unceasing flow of gold from California for more than eight years, amounting to four hundred millions of dollars, the banks of New York, the strongest banks of the Union, were compelled to suspend specie payment, after paying the comparatively insignificant sum of four millions—not more than is dug out of the mines of California in four weeks. Here is an apt illustration of the fallacy of promising dollars because they possess other promises to pay dollars. But what was the effect of the bank suspension on the body politic and on the banks themselves? The banks were just as good before they suspended as after; they were just as good after they suspended as before; and they were no better in point of ability after they resumed than while they were under suspension—except that the catastrophe had taught them a lesson, that it was dangerous to let their specie line run so low as ten millions, while their immediate liabilities were so large. On the 15th August, 1857, the liabilities of the New York city banks were one hundred and one millions, with only eleven-and-a-half millions of specie. Since resuming specie payment they have been less avaricious, and have considered it prudent to keep their specie line at more than double the former point which they deemed safe.

But why did not their bills fall in price while under suspension, and why should they keep so near the price of gold? I answer, that the bank notes kept up their prices because the banks held the notes of the best merchants in the city, which were maturing daily, and the banks, as usual, received bank notes in payment for their bills receivable. Hence, merchants would not trouble themselves to pay their notes with gold as long as bank notes would serve their purpose as well. After this had gone on a little the bank quieted the fears of the public—"confidence was restored," according to the hackneyed phrase, and these institutions were again in high feather with the people. But if the people had supposed that the end of banking on the old system had come, and that instead of only a suspension of payment, it was in fact a failure, then would have been seen how the prices of property would have raised in comparison to gold and silver. Then it would have been demonstrated

how the prices of bank notes would have ruled when tried by the standard of gold. What, then, was demonstrated by the suspension of the New York banks in 1857? Simply this principle, that bank notes and bank credits should rule prices in the American markets. That gold and silver, the Constitutional standards, should not rule. The banks had their talons planted in the vitals of the people, and they were determined to tear them in pieces or continue the old *regime.*

It will be seen by this how the merchants of the country and dealers in bank have completely sold themselves, and the great manufacturing, agricultural, and commercial interest of the nation, to a moneyed oligarchy, and this oligarchy built on a credit basis instead of gold.

If merchants would insist that banks should loan money, instead of loaning bank notes or a credit on the bank ledger, they could pay their notes in money at maturity, because, in that case, real money would circulate in place of a fiction. Hence, the merchants may blame themselves for the vast amount of bankruptcy in the currency. And it is a fruitful theme for them to contemplate, that for every dollar of bankruptcy in the currency there will be ten dollars of bankruptcy in the general crediting system of the country, and that much of loss therefrom to the body politic. The merchants and banks acting in concert, by co-operation, make a form of currency, bankrupt in fact, but circulating and passing for money and measuring values on a scale entirely differing from a bullion basis, thereby making failures a necessary consequence, and in the proportion of ten dollars of failures to every dollar of fiction which is issued.

The system of finance which has recently been so much extolled as one of perfect security to the billholder, and which is founded on the basis of State stocks, bonds, and mortgages pledged with the State Controller, and bills issued thereupon, or stamps to be signed off and used by the banker, is liable to many weighty objections. In the first place, it is substituting a negative quality for a positive one. Debt is the absence of money—the negative of gold, if I may so speak. State stocks, bonds, and mortgages are only evidences of debt. They are not even convertible into cash at a reasonable notice without heavy discount; and if a system of finance is built upon them in such a manner as to drive our gold to Europe, they cannot be converted into gold on any terms. It is easy for a State to go in debt, and to issue bonds with coupons for interest attached. It is easy to pledge these bonds, and make them discharge the double duty of being a basis upon which to issue paper money, and a source of investment, whence gain is received by the payment of the coupons for interest; but all such substitutes for money only introduce bankruptcy into the currency, with its untold attendant evils. If the New York system of banking is good on a small scale, it is good on a grand scale. If it is good on a grand scale, where is the value of gold and silver? The great alchemists, Helvetius and Spinoza, need no longer task their powers to discover the philosopher's stone, the grand magisterium, the great elixir, or the red tincture.

It has been left for Young America to demonstrate that debt, the absence of gold, is equal to gold for banking purposes. And if we have found something that is equal to gold in all its qualities, why need we weary out our lives in the arduous toil of mining, when we can amass wealth equally fast on a fictitious basis? It is matter of surprise that

men of sound sense and prudence can be satisfied with such a shadow of wealth and reject the substance. The precedent of issuing paper money is a bad one, and should now be discontinued as rapidly as possible, according to the axiom that "no length of time can make that to be valid and right which was in the beginning and in itself inherently wrong." *Quod ab initio fuit invalidum, tractu temporis non convalescit.*

The system of paper-banking and bank credits, as now in full blast in the old States of the Confederacy, under the sanction of legislative enactments by the several States, is treason against the Federal Government, and wholesale swindling and downright robbery of the State of California. The only appeal for redress which California can have is to the General Government. It is in their power to regulate this matter upon the constitutional basis, and whenever it is done the means of California will be immediately increased tenfold. At the same time that California will be so immeasurably benefited by this reform, the nation at large will be made wealthy in a corresponding ratio. No excuse could ever be made by any people for substituting credit for money, unless the money could not be obtained; and since California has come into the Union, the States have no longer the semblance of an excuse for the continuance of the nefarious, poverty-stricken, unjust, illegal, unconstitutional, and inexpedient practice of circulating "bills of credit" for the national coin.

What an absurdity it is to suppose that this State can get the value of her gold in the markets of the Union while there are in circulation 450 millions of paper currency and bank credits; and while twenty dollars in paper money are paid out to one of silver and gold. The money of the country should not be credit, or any form of credit, but actual hard cash. The framers of the American Constitution were better financiers than any of the present day. They understood the bearing of cause and effect, and reasoned in a vastly more logical manner than the bankers of modern times. But it is not to bankers that the American people are to look for sound logic on the deep subject of finance. Their interests are antagonistic to those of the nation. Their purpose is to make money, and so that they do this, it matters but little to them how much the agriculture of the country suffers, or how much the manufacturers of the nation languish and become withered. Now, either the agriculture of the nation or the manufactures are of ten thousand times the consequence to its permanent prosperity that all the combined banks in the country can be.

In the matter of the State of California *vs.* the United States, all I expect to make out is a case of equity. It is enough for my purpose. The Federal Government is sovereign; and the State of California is also a sovereignty. No debt is collectable against either if they repudiate. Hence, it is just as well to make out an equitable case as to make out one in which a legal judgment would be rendered if suit were brought to recover the balance. The ground I take is, that the old States have received of California 600 millions of dollars in gold; that they have paid for this gold in goods, wares, and merchandise, at the paper prices of the old States; that these prices have ruled at double the rates they would have done under a gold and silver currency; that gold and silver is the constitutional currency of the United States; and that it is the bounden duty of Congress to give to every State in the Union the full advantages of every provision in the Constitution.

I hold that it is the bounden duty of Congress to protect California from the vampire and treasonable practices of the old States of issuing "bills of credit," and making them "a tender in payment of debts;" and that it is the bounden duty of Congress "to fix the value of money," which it can never do while 1,480 banks are minting paper money.

I maintain, further, that, in consequence of this *laches* of the General Government to do her duty, California has been sacked of her gold in the sum of $200,000,000 in the past nine years, of principal, and of $50,000,000 of interest—the interest cost at the rate of only 6 per cent per annum—making in all $250,000,000 of equitable indebtedness which the Federal Government now owes to California. For this money California has paid to England, France, Germany, Switzerland, New York, Boston, Philadelphia, and other parts of the world, the eating canker interest of two to four per cent per month. I do not even hope to convince my countrymen that they are liable to California for any such immense rate of interest; still, it is well known that Californians have stood up to the rack and paid these extortionate rates. If such rates were counted, it would swell the amount due to over $600,000,000. But I do contend that the Federal Government justly owes to California an honest balance of $250,000,000. Fellow citizens, I claim this patent. It is my own, and let no man hereafter seek to deprive me of the honor of disclosing to the State of California that the Federal Government is this day indebted honestly and equitably to this State, in the sum of $250,000,000.

The doctrine of the law is, "that where one of two innocent parties must suffer from the fraud of a third, the one should suffer who had afforded, by his negligence, the opportunity for the commission of the fraud." Here the suffering party is California; the fraud is the practice of the old States in ignoring and trampling under foot the salutary provisions of the American Constitution, and by the issue of paper money and bank credits, cheapening the price of gold one-half or more in the marts of the Union. The third party is the Federal Government, which, by its negligence to discharge its duties on the finances of the nation, has afforded to the old States the opportunity for the commission of these vast frauds.

California, as a member of the confederacy, has a right to all the conservative provisions of the Constitution; and as the Constitution makes nothing but gold and silver coin a tender for debts, she has a right to insist on the letter of the instrument. She cannot trade with foreign countries, because the American Custom-house stares her in the face. Besides, what kind of a Union is that, which by its onerous provisions, compels a sovereign State to trade with foreign governments? Such a Union would be a Union in name, and a disunion in fact. California is not a manufacturing State, and must import largely for many years to come. But suppose California were to say to New York, "Your banking system cheapens our gold one-half; we have to pay twice as much for the goods which we import as we should have to do if you used a gold currency. You have no right to meddle with the currency; that right belongs to Congress. We wish you would return to the constitutional currency." What reply would the Empire State make to the Treasure State? First, we would hear a loud crack of the whip of State sovereignty over our ears. Then she would very coldly tell us, "attend to your own affairs, New York knows her interests, she is competent to guard them,

and she will submit to no dictation." But let Congress interpose its imperative duty and right to act on the fiscal relations of the States, and the proud Mistress Excelsior would bend suppliant at the feet of her youthful sister Miss Eureka.

Another point I wish to prove is, that it is the bounden duty of the Federal Government to protect California from this robbery of her treasure by the ruthless, insidious, and unjust operation of paper money and bank credits, as much as from the violent attacks of hostile Indians, of foreign foes, or of enemies of the country. It cannot be iterated or reiterated too often, for the knowledge of the people, that the American Constitution has conferred upon Congress the whole right to regulate the finances of the country. The States have no right at all to meddle in the premises. Let this function of Congress be no longer a dead-letter; let California be no longer compelled to part with her gold at fifty cents on the dollar. Let no banks be allowed to discount credit, but make bank loans and bank credits only equal to the actual cash means of these institutions. If the State of New York should enact any special legislation which would reduce the value of wheat, flour, and grain one-half, how would the grain-growing States chafe and bound under such enactments. If the same special legislation were enacted against cotton, how would the Southern planters spit fire at such invasion of their rights? And yet, precisely parallel to this legislation is the legislation of States legitimating banks of issue, and thus robbing California of half the value of her treasure. If the constitutional measures of value, gold and silver, were used in the old States of the Union, prices would rule there only half, perhaps less than half, what they now do. Thus, paper money creates price without corresponding value.

The imports of California from the old States in the last eight years have been, in round numbers, $400,000,000, at the paper money prices. They have been taken at these prices and paid for in gold. Thus has California lost $200,000,000 of principal, and $50,000,000 of interest. On the part of California, I pledge myself to demonstrate to the Federal Government, whenever it is ready to audit the matter in issue, that there is a just and equitable balance of $250,000,000 due to this State for damages and losses accruing to her upon the gold already remitted, by reason of the paper money system in the old States; and that this loss has accrued by and on account of a *lache* of the Federal Government to do her duty in the premises.

It is upon California—despised, neglected, oppressed, and injured California—the State which has enriched every other State of the Confederacy and impoverished herself in so doing—California, which has saved the country ten times over from bankruptcy, and furnished every drop of healthful circulation which now flows through the veins of the body politic, which has raised the country from financial poverty and placed it in a position of wealth and respect before the great powers of the earth—it is upon this State that the blighting curse of paper money comes with ten-fold fury. Six hundred millions of gold have gone from California in ten years past. She has measured her gold to the old States at precisely its sterling value. She has received for it goods, wares, and merchandise manufactured and produced under a paper currency, which, if they had been manufactured under a gold currency, would have been laid down in San Francisco at less than half the amount which has

actually been paid for them. In this way California has already lost $200,000,000. She is now losing, under her reduced importations, which are estimated at $34,000,000 annually, at least one-half this sum—say $17,000,000 per annum. Was there ever a State on the globe, with a population of only 650,000, which could pay an annual tribute of $17,000,000 in gold without any consideration in return?

Gold is the staple of California, and, by the Constitution of the United States, the measure of all values. It is California's gain that the Constitution has made her staple a standard of values. It is not the loss of the old States that such a standard has been instituted. Other nations recognize it, and, beyond doubt, it was intended by a beneficent Providence to serve mankind in this precise sphere. California has just as good right to its full value as she has to one-half or one-quarter its value. She has parted with it all at half price or less; she continues to send it at half price. Such extortion is unconstitutional, unreasonable, and unjust. And the extortion is by no means mitigated from the fact that gold is plenty in California. Few citizens of the United States are aware of these facts; but when examined upon the principles of political economy and the course of trade as now existing between the old States and this State, it will be seen that such conclusions are true and logical.

JOURNAL OF MERCANTILE LAW.

LIABILITY OF EXPRESS COMPANIES.

In the United States Circuit Court, district of Connecticut—at Hartford. September 19, 1860. Before NELSON, Circuit Judge, and SHIPMAN, District Judge.

In December, 1859, F. H. WILLIAMS, of the city of New York, sent a note, at three months, for $3,000, to the Norwalk Bank, at Norwalk, Connecticut, to be discounted. The cashier returned the note to WILLIAMS through the mail, with a letter stating that the note had too long to run, and that if he would make it a two months' note the bank would discount it. That letter was advertised by the Post-office in New York. One J. S. WILLIAMS called for the letter and obtained it. Acting upon the suggestion of the cashier, he altered the note to a two months' note, and then took it to the Adams Express Company in New York, and representing himself to be F. A. WILLIAMS, gave the note to the company to be transmitted to the Bank of Norwalk, and directed the company to bring back the proceeds to him. He also wrote a letter to the cashier, requesting him to return the proceeds by the express company, and signed the letter "F. A WILLIAMS." That letter he gave to the express company, who forwarded it to the bank with the note. The bank discounted the note and gave to the express company its proceeds (less $1 50 express charges) amounting to $2,971, in a package addressed "F. A. WILLIAMS, New York city." The bank took from the company a receipt for the money and paid the company $1 50 out of the proceeds of the note for express charges. The money was returned to New York and there delivered by the company to J. S. WILLIAMS. On the discovery of the fraud the bank brought an action against the express company, in a State Court in Connecticut, to recover the money. The action was removed by the company into the Federal Court.

The bank claimed that by the receipt of the $1 50, and by the giving of the receipt for the money, the express company had undertaken to deliver the money to F. A. WILLIAMS, to whom the package containing the money was directed. It also claimed that the officers of the bank did not observe the letter accompany-

ing the note, and that the express company was guilty of negligence in not discovering the fraud, and that it was an insurer of the genuineness of the paper which it carried for collection, and that the bank had acted upon the faith of the directions given by the express company to the bank to transmit the money for the note through it to New York. The cause came on to be tried before Judges NELSON and SHIPMAN and a jury at Hartford. After the evidence was in, the court requested the counsel for the plaintiffs to state the legal grounds upon which they relied to recover. After argument, NELSON, C. J., stated that the court were of opinion that the question involved in the case was wholly a question of law, as there was no dispute as to the facts, and he proceeded to deliver the opinion of the court substantially as follows:—

It is agreed, at least the facts warrant the conclusion, that both these parties, both the bank and the carrier, are innocent parties, so far as regards this transaction—equally innocent perhaps. And the question is, which of the two innocent parties must suffer the loss. This will depend upon the application of some dry rule of law to the admitted facts of the case.

Now, the obligation that is charged upon the carrier by the bank is this, that he received the proceeds of the note and undertook to deliver them to F. A. WILLIAMS, the maker of the original note, the genuine F. A. WILLIAMS. That is the undertaking set out and charged upon the carrier, and it is the breach of that duty or undertaking upon which is founded the claim to recover the loss. The ground of the action against the carrier is the breach of duty in not delivering the proceeds of the note to the genuine F. A. WILLIAMS, according to the undertaking: that the carrier violated his duty in delivering to the fictitious F. A. WILLIAMS instead of the genuine F. A. WILLIAMS.

It appears that the carrier had no knowledge of the F. A. WILLIAMS who was the maker of the original note, and had no knowledge that he was in any way connected with the transaction, and had no knowledge that there were any transactions existing between him and the bank. So far as it respects the carrier as connected with the transaction, F. A. WILLIAMS, the original maker of the note, was a perfect stranger. The note was delivered to the carrier by a person representing himself by the name of F. A. WILLIAMS. He was in possession of the note, and when he delivered it to the carrier, representing himself to be F. A. WILLIAMS, he at the same time wrote a letter directed to the cashier of the bank, subscribing his name, "F. A. WILLIAMS," to it. This note and this letter he delivered to the carrier for the purpose of conveyance to the bank, with the view to the note's being discounted, and with the directions to bring back the proceeds, provided the note was discounted. The note was received by the carrier in the usual way, and the only connection that the carrier had with the transaction was as a carrier of the package. The package, containing the note and the letter, was delivered to the bank. The bank received it, and upon the faith of the note discounted it and delivered the proceeds, according to the direction, to the carrier, to be remitted back to the person who employed the carrier.

Now how, upon this state of facts, can a duty, or an undertaking, be predicated on the part of the carrier, to deliver these proceeds to F. A. WILLIAMS, the original maker of the note, a stranger to the company, of whom they had no knowledge, and for whom they had transacted no business. He was not their employer in the transmission of the package to the bank. We are unable to see how, upon this state of facts, a promise or a duty can be raised, either express or implied, that they would deliver these proceeds to a stranger whom they never knew, and who had no connection with the transaction.

It seems to us, that upon the facts as they appear, the note being delivered to the carrier, accompanied by a letter, by a person representing himself to be F. A. WILLIAMS, to be carried to the bank by the carrier, and delivered there, the whole employment being performed according to the undertaking, the bank receiving the paper signed by this man representing himself to be F. A. WILLIAMS, discounting it, and returning the proceeds to the company, it seems to us that upon that state of facts the only implied undertaking on the part of the carrier, would be an undertaking to deliver the proceeds to the person who employed the carrier.

The company must have naturally supposed and believed that the bank and this person who delivered this note to them understood each other. The bank having discounted the note and sent back the proceeds according to the directions, the carrier must have supposed that it was a fair and ordinary transaction, and one in which the bank and this person understood each other. Therefore, the duty raised by implication, was to deliver the proceeds to the person who had sent the note to the bank, and who had procured the discount of the note.

As respects this letter, if it is of any importance at all, it seems to us that the most material fact is, that the carrier performed his whole duty in regard to it. The letter was delivered to the bank. Their omission to notice it, whether from neglect, or carelessness or misfortune, is certainly not to be charged upon a carrier who has performed his whole duty with respect to it. If, therefore, it is a material fact to influence the court in their judgement, we are to assume that the bank had full knowledge of the letter accompanying the note. And with respect to the indorsement upon the back of the package delivered to the bank, without regard to the purpose for which it was put on, it was the authority that the proceeds should be delivered to the express company. The letter directing that the proceeds should be returned by the carrier was the authority from the person who wrote the letter.

We are of opinion, therefore, that on the facts of the case, looked at simply with reference to the application of the rule of law that should determine the rights of the parties, no duty or promise can be raised or implied on the part of the carrier to deliver the proceeds to F. A. Williams, the original maker of the note—the genuine F. A. Williams; but that on the contrary, the duty or promise that can be raised upon these facts against the carrier, was to deliver the proceeds to the person who employed the carrier.

But there is another view of this case, which is independent of the view we have taken, and that is this. After the alteration of the note by the pretended F. A. Williams, it was no longer the note of the genuine F. A. Williams. It was a forged note. F. A. Williams was not under any obligation by virtue of his signature to that note. As it respected him, it was the same as a note entirely fabricated, for $3,000, payable in two months. It was therefore a forged note, delivered by the guilty party to the carrier, to be conveyed by it, as carrier, to the bank for the purpose of discount. That note was taken to and received by the bank, and on the faith of itself was discounted, and the proceeds were returned. Now, is the carrier responsible for the conveyance of forged papers? Is the carrier an insurer of the genuineness of all papers that are put into his hands for the purpose of transmission or conveyance? We think not. This would be an alarming doctrine to lay down, as it respects the common carrier. This business, carried on through the medium of the express companies, has become a very extensive business. The common carrier is only a mode of communicating with banks, transmitting notes for discount, and carrying back their proceeds. The carrier has no earthly interest in such transaction, but as a mere vehicle of conveyance—is not connected at all with the party procuring the discount, or with the bank—does not influence the bank to discount the paper, and makes no representations in that regard, and the bank knows that the carrier has no other connection with the paper than as a vehicle of conveyance. It would be a very strange doctrine to hold that, under such circumstances, the carrier should be responsible to the bank for the genuineness of the paper—that the mere carrying of it, the mere conveyance of it from the party employing the carrier to the bank, should operate as a guaranty of the genuineness of all the paper put into the hands of the carrier for conveyance. That principle cannot be sustained. Now, that is this case. The note here was as much a forged note as if it had been fabricated throughout. There was no obligation on the part of F. A. Williams, the original and genuine maker of it, under the alteration. It must be regarded, therefore, as forged.

We are quite clear that the case has not been made out on the part of the plaintiffs, and that the defendant is entitled to a verdict.

The jury found a verdict for the defendant.

COMMERCIAL CHRONICLE AND REVIEW.

FOREIGN TRADE—CROPS ABROAD—WANTS OF ENGLAND—SHIPMENT OF BREADSTUFFS—LARGE EXPORTS OF NEW YORK—POLITICAL DISQUIET—FALL IN STOCKS—AGGREGATE DEPRECIATION—UNITED STATES STOCKS—NEW LOAN—CAPITAL DEVELOPED—RAILROAD RECEIPTS—MILES IN OPERATION—COST—RECEIPTS—THE FUTURE—RATES OF MONEY—EXCHANGES AT THE SOUTH—PRICES OF BILLS—SPECIE MOVEMENT—ASSAY-OFFICE—PAYMENTS IN BARS—INCREASED COINAGE—CIRCULATION OF COIN—COTTON SALES—SOUTHERN BANKS—EXCHANGE AT NEW YORK—FOOD AND RAW MATERIAL—NORTHERN MANUFACTURERS—CHEAP COTTON—DEAR FOOD—INCREASE OF MANUFACTURES—SALES TAKEN—EUROPEAN DEMAND—ENGLAND'S PROPORTION—NORTHERN PURCHASES—ENGLAND'S HARVESTS OFTEN INFLUENCE.

THE tendency of the foreign trade has been towards the development of a season of unusual prosperity. The contradictory reports that have been so long received in relation to the English harvest seem to have settled down in a certainty of large deficit. The *Mark Lane Express* gives the following summary of the situation of the harvest:—

We hazarded an opinion a few weeks since that the actual deficiency in produce of wheat would amount to one fifth; and certainly everything that has taken place has tended to confirm this. Even those who at the time were too sanguine to fall in with such a view of the case are now convinced that it was by no means an exaggerated one; and that even a much larger deficiency may be expected, on account of the smaller breadth than usual having been sown last season, in consequence of the high price of barley.

Under these serious circumstances, which are much upon a par with those of the year 1816, it is necessary to look around us to see what prospect we have of obtaining an adequate supply from abroad. The following are the imports of wheat, and flour as wheat, for the seven years from 1853 to 1859 inclusive:—

	Quarters.		Quarters.
1853.....	6,217,910	1859.....	4,951,871
1854.....	4,373,085		
1855.....	8,211,766	Divide by 7.....	33,465,533
1856.....	5,207,147		
1857.....	4,060,285	Average.....	4,780,790
1858.....	5,343,469		

This table shows that, taking one year with another, we cannot get through with less than four-and three quarter million quarters. But the most notable fact is that the last four years—in three of which the crops were above the average in productiveness—the imports have averaged nearly five million quarters, (4,893,193,) the greater part of which, as well as of the native produce, was consumed before the present harvest was ready. How, then, do we stand in regard to the present stock of wheat on hand, and the prospect of importations in the coming season.

By the official returns, which we have recently published, it appears that in the eight months of the present year ending the 31st of August, we have imported, in wheat and flour, as follows:—

Wheat.....quarters		2,528,640
Flour.....		703,740
Total.....		3,252,380

If we import at the same rate the remaining four months of the year, it will stand thus:—

Amount for eight months.....quarters	3,232,380
One half.....	1,616,190
Total.....	4,848,570

This will barely make up the average of the four previous years; whilst after Christmas, unless we have an unusually mild winter, the imports will cease for four months, in consequence of the frost.

The shipment of breadstuffs has been large, and it has been supplied from the interior, by rail and water, with great freedom; insomuch that the prices have not advanced under shipments that have carried the exports of the port of New York to a grade never before reached, and which have gone far towards equalizing the trade of New York, by overcoming a portion of the great disparity which exists usually between the imports and exports. This disparity has arisen from the fact that a large portion of the imports are for the account of that section whose exports go forward mostly direct, but whose returns come through the port of New York. In the present year the Western productions have come forward with a liberality, and have been appropriated to the discharge of debts in such sort that, although the exports have been increased, there has been no answering return of imported goods. The supply of capital has been large and prices lower, the more so that the usual political circumstances that attend a Presidential campaign have caused some hesitation about employing capital. The stock market, which, under such circumstances of abundant means and absence of speculation or commercial demand, became so active at advancing prices, as noticed in our last, lost its activity and more than the whole of the advance that had previously taken place. The nature of the change is seen in the following figures:—

	June 15.			October 10.			Nov. 19.	
	Capital.	Price.	Value.	Price.	Value.	Price.	Value.
N. Y. Central.....	$24,182,400	81	$19,000,000	90	$21,780,000	70	$16,927,630
Illinois Central... ...	25,000,000	60	15,000,000	87	22,000,000	56	14,000,000
Erie.....	11,000,000	17	1,870,000	40	4,400,000	26	2,860,000
Hudson River.....	3,770,926	46	1,734,200	61	2,360,000	48	1,809,618
Harlem.....	4,217,100	12	530,000	20	843,400	14	614,342
Harlem, preferred....	1,500,000	37	555,000	50	750,000	33	495,000
Reading.....	11,737,041	40	4,494,816	46	5,382,000	33	3,763,223
Michigan Central. ...	6,057,840	46	2,760,000	78	4,200,000	48	2,907,763
Mich. So. and No. Ind.	6,081,800	10	608,180	24	1,520,420	13	790,634
" " guar. stk.	2,893,600	23	667,000	50	1,446,800	28	811,208
Galena and Chicago...	6,026,400	61	3,750,000	77	4,620,000	57	3,435,048
Cleveland and Toledo.	3,843,712	30	1,010,000	47	1,551,000	25	835,928
Chicago and Rock Is..	5,608,000	67	3,752,000	78	4,366,000	51	2,857,530
Milwaukee and Miss..	3,696,693	5	175,000	15	525,000	9	3,336,973
Total.....	$120,077,112	..	$55,906,196	..	$75,746,620	..	$55,444,947
Average.....		45		62		46	

The advance took place almost altogether in railroad stocks which are not dividend paying, and which were borne upward upon the speculative purchases of those who anticipated, through the returning traffic of the country, a restored value in those securities. The progress of the fall trade showed, however, that these expectations were, to say the least, premature, and the passage of the dividend by one of the companies of which the strongest expectations had been entertained, "broke" the market, and a declining tendency set in which was favored by the operations of the "bear" party, on the plea of political dangers, until the whole of the advance was lost. The decline involved the fall even of the Federal and State stocks, and in the midst of a general abundance of money. The apprehension of political evils came seriously to affect general business, showing itself in the demand for gold for the South. The growing panic caused United States 5s to sell at 97. Virginia State 6s at a fall of 16 per cent;

Missouris 10 per cent; Tennessees 13 per cent; Ohio 6s 5 per cent. Under the circumstances the Treasury Department issued the following notice:—

WASHINGTON, D. C., November 17, 1860.

JOHN J. CISCO, Assistant Treasurer, United States.

Such bidders for the loan as, on or before the 22d instant, shall have paid up one-half of their offers, I have decided to allow 30 days from that date to pay the other half. Inform such bidders as may ask extension of time.

HOWELL COBB, Secretary of the Treasury.

The general abundance of capital in the country is marvelous, when we reflect upon the immense amounts absorbed in railroad building during the last ten years. It is the fact that each road opened has developed, up to this time, more capital than it has cost, by enabling labor and fresh land to add their joint production to the circulating capital of the country. The number of freight and passenger roads in operation West was about 260, having cost $1,088,000,000, and the gross revenues of these roads was $111,203,245, or 11 per cent of the gross cost. This revenue was composed of fares, freights, and mail charges, and leaves about 6 per cent net on the gross investment. That vast sum has been gathered from traffic that has been created in the last twenty years, by the operation of the roads, since they have opened new lands that have received new settlers, and their labor has been the basis of the business. These roads are but now in running order, while the settlers on new lands are hardly yet ready to supply the full amount of traffic of which they are capable; but every year of the next ten will probably show an addition to the business of the roads, while few will be built. From a railroad work recently published, the following facts appear in relation to the railroads of the New England and Middle States:—

Number of miles in operation	9,851	Receipts from opening	$666,662,148
Cost of miles.....	$485,991,781	Expenses.....	438,104,907
		Receipts, net.....	$228,557,241

These are aggregate figures from the opening of the roads to the present time, which will average twenty years. In that time, therefore, the vast sum of $228,557,241 net has been derived from railroad traffic—a traffic which did not exist before the roads were built. This traffic has returned the capital advanced for their completion, and 50 per cent in addition. How large must have been the sum of industrial products which has paid that sum! While railroads have been thus active, steam tonnage has been no less so. If such has been the case in the last twenty years, what may we not expect from the continued operation of the same causes, actuated by abundant capital, in the next twenty years, provided that the country is not torn by the dissensions excited by place-hunters? The effects of disturbance began to be felt early after the election, manifesting itself in growing discredit at the South, and consequent uneasiness as to the ultimate effects of hesitation in payments. The money market, therefore, has declined in price for long dated paper as follows:—

	On call.		Indorsed		Single	Other	Not well
	Stocks.	Other.	60 days.	4 a 6 mos.	names.	good.	known.
Mar. 15th.....	5 a 5½	5½ a 6	6 a 7	7½ a 8	8½ a 9½	10 a 12	15 a 18
Apr 1st.....	5 a 5½	6 a 6½	5½ a 6	6 a 6½	5½ a 7½	9 a 10	11 a 13
Apr. 15th.....	5 a 5½	6 a 6½	5½ a 6	6 a 6½	6½ a 7½	9 a 10	11 a 13
May 1st.....	5 a 5½	6 a 6½	5 a 6	6 a 6½	6½ a 7½	9 a 10	11 a 12
May 15th	5 a 6	6 a 6½	5 a 6	6 a 7	6½ a 7½	9 a 10	10 a 12
June 1st.....	4½ a 5	6 a 6½	5 a 6	6 a 7	6½ a 7½	8 a 9	9 a 10
June 15th	4½ a 5	5 a 6	4½ a 5	5 a 5½	5½ a 6	6 a 7½	8 a 9
July 1st.....	5 a 5½	5½ a 6	.. a 5	5 a 6	5½ a 6	7 a 7½	8 a 9

	On call. Stocks.	On call. Other.	Indorsed. 60 days.	Indorsed. 4 a 6 mos.	Single names.	Other good.	Not well known.
July 15th.....	5 a 5½	5½ a 6	.. a 5	5 a 6	5½ a 6	7 a 7½	8 a 9
Aug. 1st.....	5 a 6	6 a 7	5 a 6	6 a 6½	6½ a 7	7½ a 8½	9 a 10
Aug. 15th.....	5½ a 6	6 a 7	6 a 6½	6 a 7	6½ a 7½	8 a 9	9 a 10
Sept. 1st.....	6 a 7	7 a 9	6½ a 7	7 a 9	8 a 9	9 a 12	12 a 24
Sept. 15th.....	6 a 7	6½ a 7	7 a 7½	7½ a 8	6½ a 7½	9 a 9½	10a10½
Oct. 1st.....	6½ a 7	7 a 8	6½ a 7	6½ a 7½	8 a 8½	9 a 10	12a20
Oct. 15th.....	6½ a 7	7 a 8	6½ a 7	6½ a 7½	8 a 8½	9 a 10	12a20
Nov. 1st.....	6½ a 7	7 a 8	6½ a 7	7 a 7½	8 a 9	10 a 12	12a15
Nov. 15th.....	7 a 8	7 a 9	8 a 9	9 a 10	9 a 12	14 a 15	15 a 24

The short paper continued to go freely, but long dates were without takers to any considerable extent. The capital usually employed in the purchase of bills, by individuals, was withdrawn; although capital was offered to the brokers at 7 per cent, they dare not employ at any terms. Paper was sold at 12 and some at 21 per cent, which 3 months before would have been done at 6½.

The exchanges of the South fell to lower rates on New York, and the banks and remitters were reluctant buyers. In consequence a current of specie set southward in degree somewhat greater than usual even at this season. The loss of credit, growing out of political derangements, by causing a change in the usual mode of moving the crops to market, produced much difficulty. The series of obligations depending upon the flow of payments in one direction becomes disturbed when the commodities on which they are based seek their destination through new channels. The comparatively large exports of the port of New York at this season of the year have caused an unusual supply of bills at a season when gold is generally depended upon to bridge over the supply of the cotton crop. The rates of bills have therefore fallen to very low points, with loss of confidence, as follows:—

RATES OF BILLS IN NEW YORK.

	London.	Paris.	Amsterdam.	Frankfort.	Hamburg.	Berlin.
Jan. 1..	9 a 9⅛	5.18¾ a 5.17½	41⅝ a 41¾	41¾ a 41⅞	36½ a 36¾	73 a 73½
15..	8½ a 9	5.21½ a 5.18¾	41½ a 41½	41½ a 41½	36⅜ a 36⅝	73⅜ a 73½
Feb. 1..	8⅞ a 9	5.18¾ a 5.17½	41½ a 41½	41⅝ a 41¾	36⅜ a 36⅝	73⅜ a 73⅝
15..	8½ a 9	5.18¾ a 5.17½	41⅜ a 41½	41½ a 41⅝	36½ a 36½	73⅜ a 73½
Mar. 1..	8⅝ a 9	5.17½ a 5.15	41½ a 41¾	41¾ a 41⅞	36⅝ a 36⅞	73⅝ a 73⅞
15..	8⅝ a 8⅞	5.17½ a 5.15¾	41⅜ a 41¾	41⅜ a 41¾	36⅜ a 36¾	73½ a 73⅝
Apr. 1..	8⅝ a 8⅞	5.18¾ a 5.16¼	41½ a 41⅝	41½ a 41⅝	36⅜ a 36¾	73½ a 73⅝
15..	8⅝ a 8⅞	5.16¼ a 5.17½	41⅜ a 41½	41⅜ a 41¾	36½ a 36¾	73½ a 73⅝
May 1..	9¼ a 9½	5.18½ a 5.12½	41½ a 41¾	41⅞ a 42	36¾ a 36⅞	73½ a 73¾
15..	9⅜ a 9⅝	5.18¾ a 5.13¼	41⅝ a 41⅞	41⅞ a 42	36¾ a 37	73¾ a 73½
Jun. 1..	9⅜ a 9⅝	5.13¼ a 5.12½	41¾ a 41⅞	41⅞ a 42	37 a 37½	73¾ a 73½
15..	9½ a 9¾	5.18¾ a 5.12½	41⅝ a 41¾	41⅞ a 42	36¾ a 37½	73⅜ a 73½
July 1..	9½ a 9⅝	5.18¾ a 5.18¼	41⅝ a 41¾	41⅞ a 42	36¾ a 37	73¾ a 73⅝
15..	9¼ a 9⅞	5.18¾ a 5.13¼	41½ a 41¾	41¾ a 41⅞	36¾ a 37	73¾ a 73½
Aug. 1..	9⅜ a 9⅞	5.18¾ a 5.13¼	41¾ a 41¾	41⅞ a 42	36¾ a 37	73¾ a 73⅞
15..	9⅜ a 10	5.18¾ a 5.13¼	41¾ a 41⅞	41⅞ a 42	36½ a 37½	73¾ a 73½
Sep. 1..	9¾ a 10	5.14⅜ a 5.18¼	41⅜ a 41⅞	41⅝ a 42	36⅞ a 37	73⅜ a 73¾
15..	9¾ a 9⅞	5.14⅜ a 5.18¼	41⅜ a 41¾	41¾ a 42	36¾ a 36¾	73⅜ a 73½
Oct. 1..	9½ a 9⅝	5.15¾ a 5.14⅜	41½ a 41¾	41¾ a 41⅞	36⅜ a 36¾	73½ a 73¾
15..	8¼ a 9	5.17½ a 5.15¾	41½ a 41¾	41⅜ a 41¾	36½ a 36¾	73½ a 73⅜
Nov. 1..	8 a 8⅜	5.20 a 5.17½	41½ a 41½	41⅜ a 41½	36½ a 36½	72 a 73
15..	5 a 6¼	5.30 a 5.23½	40½ a 40¾	40¾ a 41½	35½ a 36½	72½ a 72½

These rates were nearly nominal—some sales were made at par. The wants of produce shippers were very urgent. At the West exchange rose to 10 per cent; bank accommodation ceased, and collection became impossible. The receivers of produce who sold to shippers could not get paid, because bills were unsaleable, and as a consequence could not meet Western paper. Some efforts were made to draw the gold from abroad for the bills. That cost time and money.

The general abundance of money has favored remittance, and the lower rate of bills, now accompanied by a cessation of the export of specie, would indicate not only no great balances due abroad, but also that there is no disposition to remit foreign capital. The question of safety being settled, the circulation of the market promotes the influx of capital, seeing that the rate of money rises, and the lower prices of bills tempt investment. As compared with last year, the specie movement has been as follows:—

GOLD RECEIVED FROM CALIFORNIA AND EXPORTED FROM NEW YORK WEEKLY, WITH THE AMOUNT OF SPECIE IN SUB-TREASURY, AND THE TOTAL IN THE CITY.

	1859.		1860.			
	Received.	Exported.	Received.	Exported.	Specie in sub-treasury.	Total in the city.
Jan. 7.....	.....	$1,052,558	.....	$85,080	$7,737,965	$25,600,699
14.....	$1,376,300	218,049	1,788,666	88,482	7,729,646	26,470,512
21.....	.....	567,398	.....	259,400	8,352,485	27,585,970
28.....	1,210,713	467,694	1,760,582	81,800	8,957,123	29,020,862
Feb. 4.....	.....	606,969	94,569	427,457	9,010,569	28,934,870
11.....	1,319,928	361,550	1,476,621	92,350	9,676,782	29,464,299
18.....	.....	1,013,780	.....	592,997	10,012,572	30,603,762
26.....	1,287,967	358,354	1,393,179	202,000	8,955,203	29,729,199
Mar. 3.....	.....	1,427,556	382,503	667,282	8,734,028	31,820,840
10.....	933,130	307,106	1,198,711	115,473	8,237,909	30,139,089
17.....	.....	870,578	152,000	429,260	8,099,409	31,271,247
24.....	.....	208,955	895,336	465,115	8,122,672	31,408,876
31.....	1,032,314	1,343,059	155,110	706,006	8,026,492	31,447,251
Apr. 7.....	.....	576,107	.....	310,088	7,562,885	30,162,017
14.....	1,404,210	1,637,104	1,146,211	630,010	7,714,000	31,640,982
21.....	.....	1,496,889	.....	241,503	7,531,483	30,764,897
28.....	1,723,352	1,680,743	1,455,337	1,774,767	7,668,723	30,848,532
May 5.	.....	2,169,197	.....	2,355,117	7,041,143	30.856,889
12.....	1,480,115	1,926,491	1,382,753	533,881	6,539,414	29,319,801
19.....	.....	2,223,578	.....	1,251,177	6,864,148	30,599,341
26.....	1,938,669	5,126,643	1,519,703	1,317,773	6,982,660	30,414,437
June 2.....	.....	2,325,972	.....	1,719,138	6,621,100	31,196,553
9.....	1,513,978	1,877,294	.....	1,542,466	6,620,622	30,406,203
15.....	.....	1,669,263	1,335,652	2,526,478	6,426,755	30,537,000
22.....	.....	1,620,731	.....	1,417,757	6,326,894	29,677,815
29.....	2,041,237	1,861,163	1,541,580	1,962,776	6,253,357	28,717,607
July 9.....	.....	1,398,885	... .	1,166,773	5,187,468	27,939,162
14.....	1,736,861	2,495,127	1,514,884	1,283,135	5,404,367	28,156,061
21.....	.....	2,030,220	673,290	1,624,280	5,432,789	28,876,433
28.....	2,145,000	2,344,040	.....	1,880,497	5,112,942	28,212,668
Aug 4.....	.....	1,284,855	988,676	1,739,259	5,559,922	27,688,011
11.....	1,860,274	1,505,389	1,006,283	1,357,198	5,732,534	27,312,274
18.....	.....	1,594,933	.....	2,183,281	5,902,350	26,911,000
25.....	2,126,332	1,584,879	798,832	1,730,696	5,985,545	26,105,279
Sept. 1.....	*962,030	509,649	950,000	1,302 266	5,607,627	24.642,700
8.....	2,046,006	2,363,385	.....	1,198,893	5,333,650	24.721,300
15.....	.....	1,760,331	791,660	1,088,923	5,636,367	24,597,300
22.....	2,042,363	2,727,194	.....	533,843	5,448,804	24,435,400
29.....	.....	1,414,590	1,202,657	900,700	5,223,432	25,400,400
Oct. 7.....	†2,350,670	727,981	.....	689,419	4,991,575	25,139,300
15.....	1,883,670	1,430,833	1,971,645	16,679	4,496,881	24,770,669
20.....	.....	1,109,603	810,225	1,033,439	4,554,642	26,669,870
27.....	1,871,554	2,059,492	.....	361,808	4,887,003	27,685,500
Nov. 3.....	.....	1,519,673	1,241,939	188,750	5,636,258	27,834,100
10.....	1,568,107	1,068,407	.....	195,320	5,733,746	26,862,100
Total.....	37,754,665	65,858,694	29,658,925	41,418,258	.....	.....

* From New Orleans. † $800,000 silver from Mexico.

The exports, it appears, have dwindled to an insignificant sum, as compared with those of last year, and the aggregate exports are, since January, twenty-four-and-a-half millions less. The receipts of gold from California have also been correspondingly less. The large sales of Western produce, after the unfavorable balance of the ledger, caused by the difficulties of 1857, shall have been corrected, will tend to cause an increased demand for the metals. This, however, by the same causes, will be supplied by retaining the gold in the country, which, but for the outgo of breadstuffs, would proceed to Europe. The operations of the United States Assay-office have been as follows :—

NEW YORK ASSAY-OFFICE.

	Foreign.				United States.				Payments in	
	Gold.		Silver.			Silver.				
	Coin.	Bullion.	Coin.	Bullion.	Gold.	Coin.	Bullion.		Bars.	Coin.
Jan.	14,000	18,000	11,200	14,000	2,478,000	1,800	20,000		647,000	1,910,000
Feb.	5,000	28,000	6,500	24,000	951,000	....	7,500		932,000	90,000
Mar.	8,000	15,000	23,400	5,500	267,000	1,100	2,500		180,000	142,500
Apr.	8,000	32,000	14,500	10,000	183,000	3,700	3,800		187,000	70,000
May	11,200	20,800	25,500	18,000	176,000	7,000	16,500		230,000	45,000
June	12,000	19,000	10,600	4,000	147,000	1,750	2,750		158,000	38,500
July	9,500	18,000	12,800	8,000	159,500	1,200	3,000		140,000	72,000
Aug.	12,000	14,000	16,000	14,100	208,000	1,000	3,900		190,000	79,000
Sept.	13,000	41,000	7,500	14,000	323,000	....	8,500		350,000	57,000
Oct..	7,000	10,000	6,400	38,000	1,183,000	1,000	12,600		300,000	958,000
Tot.	99,700	109,800	133,800	49,600	6,075,500	18,550	83,050		3,314,000	4,759,000
'59	105,000	110,000	393,980	67,900	2,768,600	12,900	90,120		2,699,000	1,128,100

The deposits of gold this year, as compared with the last, are very large, and there has been paid in coin to a far greater amount than last year, when the export of bars was much more active than it has this year been, or is likely to be. As a necessary result, the Mint shows a far greater degree of activity than it did last year, particularly in the coinage of gold, as follows :—

UNITED STATES MINT, PHILADELPHIA.

	Deposits.		Coinage.			
	Gold.	Silver.	Gold.	Silver.	Cents.	Total
January.....	$200,000	$41,000	$1,024,563	$41,000	$24,000	$1,090,568
February.....	1,838,578	35,573	1,632,160	21,600	24,000	1,677,760
March	144,478	82,255	317,451	132,989	29,000	479,440
April.....	281,891	49,764	252,756	38,431	30,000	321,188
May.....	90,828	72,468	133,004	81,100	35,000	249,104
June.....	54,893	54,676	63,718	97,160	24,000	184,878
July	97,041	14,181	101,975	87,000	16,660	205,635
August	132,133	22,741		No coinage.		
September ...	2,174,100	29,537	2,181,460	36,000	4,000	2,221,460
October.....	457,750	45,829	357,373	54,673	10,000	422,049
Total, 1860...	$6,291,689	$458,004	$5,964,451	$589,859	$196,660	$7,464,082
Total, 1859...	1,232,514	772,496	1,153,941	887,996	290,000	4,336,947

There has been, it appears, an excess of coinage this year over last of nearly $4,000,000. The quantity of coin in circulation is now probably larger than for any time since the panic of 1857—the effect of that event having been to draw off coin in default of other means of payment. The operation of the banks at the South does seem to have been widely different from last year. The New Orleans banks held almost the identical quantities of exchange, week by week, through October, that they held last year. They last year, however, increased their loans in that period $2,000,000, while this year they have not increased them at all, the specie being $3,000,000 less. The cotton movement has also

been less. The quantity of cotton sent to Northern ports is nearly double what it was last year. The position of the cotton crop, in face of the state of affairs in Europe, promises well. The fears of a renewed general war subside, and since the greater breadth given to the market for cotton in the States of Europe, the effects of short English crops are far less perceptible than formerly. A short crop abroad was, in former years, a promising period for the Northern manufacturer, since it operated both ways in their favor, viz.: by lessening the purchases of England, the raw material was caused to fall in price, and thus reduce the cost of goods, at a time when the exports of breadstuffs, improving the condition of the producers, enhanced the demand for the goods. That state of affairs seems now, in some degree, to be changed. The home supplies of produce are so abundant that a considerable export does not enhance the home value, while the diminished demand for cotton in England, arising from dear food, does not suffice to reduce the value of cotton. The goods, on the other hand, suffer through the competition which has become so rife in the manufacturer. The quantity taken last year, as is apparent from annual tables published, has largely increased. The average quantities consumed in the United States for the five years prior to 1859, was 725,000 bales, and for 1859 the quantity taken was 927,651 bales, an increase 30 per cent, and an increase of 40 per cent over the purchases of the spinners in 1858. The largest proportion of this increase was for the mills north of Virginia. The quantity taken in Virginia and south of it has doubled in the last ten years, and is now 185,522 bales, showing a very steady progress in the local demand for the raw material, which is wrought up into coarse cloths.

The purchases of France last year greatly increased, being at the rate of 30 per cent advance over the former year. The proportion which England has taken of the whole crop last year was 60 per cent, and she is losing her proportion of the share as the manufacture, extending in the United States and upon the continent of Europe, raises up other customers. The northern United States now require as much cotton as England did thirty years since. The greater breadth of the market for the raw material takes off the effect of dear food in England. A continued succession of short harvests in England would gradually undermine the ability of England to buy cotton except for local consumption.

The general trade of the port has not been apparently so active as usual, although the sum of the figures of the external trade is large.

The imports into the port of New York for the month of October show an increase under all the heads, as compared with the preceding years. The increase has been in general merchandise, however, since the imports of dry goods are, for the month, but little more than last year. The warehousing operations have increased. The result shows a reduction in bond. We annex a comparison which includes four years :—

FOREIGN IMPORTS AT NEW YORK IN OCTOBER.

	1857.	1858.	1859.	1860.
Entered for consumption.....	$2,791,905	$9,234,470	$9,345,609	$10,974,428
Entered for warehousing.....	7,356,424	2,157,678	2,194,258	2,817,461
Free goods.....	1,782,345	2,061,468	1,447,433	1,911,515
Specie and bullion.....	2,509,194	89,368	630,646	1,083,838
Total entered at the port.....	$14,349,867	$13,542,984	$13,617,946	$16,787,242
Withdrawn from warehouse.....	1,750,392	2,462,425	2,740,892	3,018,393

The imports since January have been larger than for the same period of any previous year except the last, 1859 :—

FOREIGN IMPORTS AT NEW YORK FOR TEN MONTHS, FROM JANUARY 1st.

	1857.	1858.	1859.	1860.
Entered for consumption.....	117,314,904	$85,816,904	153,743,279	140,760,836
Entered for warehousing.....	64,212,297	22,389,828	30,546,026	35,213,386
Free goods	17,287,050	18,613,563	24,608,111	23,380,578
Specie and bullion	9,189,107	2,110,541	2,464,700	2,231,471
Total entered at the port.....	208,003,358	128,930,836	211,362,116	201,586,271
Withdrawn from warehouse.....	33,872,666	33,560,002	28,046,201	28,269,420

The imports of dry goods in October are larger than for the same month in many previous years, and the quantity in bond increased, giving indications that the markets were fully supplied :—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR THE MONTH OF OCTOBER.

ENTERED FOR CONSUMPTION.

	1857.	1858.	1859.	1860.
Manufactures of wool.....	$200,452	$1,008,686	$1,421,850	$1,452,145
Manufactures of cotton.....	95,994	529,125	774,620	482,349
Manufactures of silk	145,702	1,364,921	1,155,513	1,789,238
Manufactures of flax.....	70,197	415,330	625,838	415,214
Miscellaneous dry goods.....	110,490	226,528	241,175	474,404
Total.....	$622,835	$3,545,090	$4,218,996	$4,613,350

WITHDRAWN FROM WAREHOUSE.

	1857.	1858.	1859	1860
Manufactures of wool	$61,255	$300,980	$147,508	$196,448
Manufactures of cotton.....	20,408	64,094	57,924	51,308
Manufactures of silk	49,929	54,498	28,843	38,677
Manufactures of flax.....	4,902	72,534	88,240	43,081
Miscellaneous dry goods.....	25,258	75,730	29,516	19,599
Total.....	$161,752	$567,836	$302,031	$349,133
Add entered for consumption.....	622,835	3,545,090	4,218,996	4,613,350
Total thrown upon market..	$784,587	$4,112,926	$4,521,027	$4,962,483

ENTERED FOR WAREHOUSING.

	1857.	1858.	1859.	1860.
Manufactures of wool....	$779,708	$94,022	$154,732	$330,903
Manufactures of cotton.....	479,056	78,761	119,899	199,871
Manufactures of silk.....	877,371	44,216	53,051	64,275
Manufactures of flax.....	312,629	80,506	110,966	66,070
Miscellaneous dry goods.....	256,510	51,266	55,749	53,438
Total.....	$2,705,304	$348,771	$493,797	$714,557
Add entered for consumption	622,835	3,545,090	4,218,996	4,613,350
Total entered at the port....	$3,328,139	$3,893,861	$4,712,793	$5,327,907

This leaves the total receipts of dry goods at New York from foreign ports, since January 1st, nearly $7,000,000 less than last year :—

IMPORTS OF FOREIGN DRY GOODS AT THE PORT OF NEW YORK, FOR TEN MONTHS, FROM JANUARY 1ST.

ENTERED FOR CONSUMPTION.

	1857.	1858.	1859.	1860.
Manufactures of wool	$19,211,416	$14,899,522	$29,797,207	$27,693,715
Manufactures of cotton	13,844,025	8,087,121	19,640,906	12,984,731
Manufactures of silk	22,057,413	15,824,483	28,631,919	30,756,997
Manufactures of flax	5,114,515	3,775,793	8,715,678	5,785,845
Miscellaneous dry goods	5,490,856	2,924 698	4,936,479	5,412,817
Total	$65,718,225	$45,511,617	$91,722,189	$82,633,505

WITHDRAWN FROM WAREHOUSE.

	1857.	1858.	1859.	1860.
Manufactures of wool	$4,876,938	$4,304,226	$2,578,890	$3,086,061
Manufactures of cotton	2,738,828	3,344,757	1,404,902	2,310,803
Manufactures of silk	3,912,795	3,119,963	796,003	1,469,286
Manufactures of flax	1,394,028	1,940,560	880,313	751,946
Miscellaneous dry goods	733,135	1,212,109	354,466	519,123
Total	$13,655,719	$13,921,615	$6,014,074	$8,136,499
Add entered for consumption	65,718,225	45,511,617	91,752,189	82,633,050
Total thrown on market	$79,373,944	$59,433,232	$97,736,263	$84,770,004

ENTERED FOR WAREHOUSING.

	1857.	1858.	1859.	1860.
Manufactures of wool	$7,429,904	$2,003,664	$3,040,185	$3,270,768
Manufactures of cotton	3,557,696	1,726,791	1,383,908	2,359,275
Manufactures of silk	5,515,267	1,076,773	787,544	1,374,788
Manufactures of flax	2,270,263	808,779	800,296	494,900
Miscellaneous dry goods	1,674,084	535,150	436,628	554,208
Total	$20,457,214	$6,151,157	$6,448,561	$8,053,939
Add entered for consumption	65,718,225	45,511,617	91,722,189	82,633,505
Total entered at the port	$86,175,439	$51,662,774	$98,170,750	$90,687,555

The exports from the port of New York for the month are very large, the domestic produce reaching over $10,000,000, and is due almost entirely to the great shipments of breadstuffs. Cotton has also been freely exported, and there is a consequent decline in the outgoes of specie. It will be remarked, that the exports from this port approximate the imports into it:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE MONTH OF OCTOBER.

	1857.	1858.	1859.	1860.
Domestic produce	$6,491,529	$5,233,863	$4,752,779	$10,067,330
Foreign merchandise (free)	212,443	161,063	252,878	94,175
Foreign merchandise (dutiable)	806,049	359,185	482,440	394,753
Specie and bullion	297,259	3,028,405	5,344,159	2,106,395
Total exports	$7,807,280	$8,782,016	$10,832,256	$12,662,653
Total, exclusive of specie	7,510,021	5,753,611	5,488,097	10,556,258

The total exports from the port since January 1st have been more than in any previous year. The specie export has declined over $21,000,000, and the export of domestic produce has increased $25,000,000:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR TEN MONTHS, FROM JANUARY 1.

	1857.	1858.	1859.	1860.
Domestic produce	$58,725,298	$46,767,981	$48,223,748	$73,594,650
Foreign merchandise (free)	3,389,769	1,286,624	2,580,757	2,077,302
Foreign merchandise (dutiable)	4,910,199	3,845,857	3,930,108	4,531,478
Specie and bullion	33,585,891	23,631,253	63,270,614	41,463,679
Total exports	$95,561,157	$75,031,715	118,005,227	121,667,109
Total, exclusive of specie	61,975,266	51,400,462	54,734,613	80,203,430

The duties received at the Custom-house are somewhat less than last year:—

CASH DUTIES RECEIVED AT NEW YORK.

	1858.	1859.	1860.
First six months	$11,089,112 57	$19,912,181 99	$18,389,679 00
In July	3,387,805 33	4,851,246 89	4,504,066 00
In August	3,545,119 01	4,243,010 43	4,496,243 00
In September	2,672,935 68	2,908,509 95	3,038,803 00
In October	2,054,834 43	2,818,750 82	2,632,078 00
Total since Jan. 1st	$22,749,805 97	$33,833,700 08	$33,060,869 00

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

ST. LOUIS—DEBT AND FINANCES.

The following abstract of the Controller's report gives the situation of the debt of St. Louis:—

The bonded debt of the city on the 1st of October, was $5,006,700

And was issued for the following purposes:—

Railroads	$1,634,000	Public sewers	425,000
Past indebtedness	711,500	Old limit improvements	259,000
General municipal purposes	525,700	Harbor	247,000
Water-works	490,000	Wharf	166,000
Purchase of real estate	437,000	District sewers	111,500

COMPARATIVE ESTIMATE.

Our bonded debt in April, 1858, was	$5,207,000
Our floating debt	300,000
Total	$5,507,000
Our bonded debt in October, 1860, is	$5,600,700
Floating debt	10,000
Total	$5,610,700
Decrease of public debt in two-and-a-half years	490,700

The outstanding bonded debt will become due in the following fiscal years:—

1860	$57,000	1872	$374,000	1881	$50,000
1861	126,200	1873	604,000	1882	229,000
1862	41,500	1874	380,000	1883	155,000
1863	14,000	1875	440,000	1885	15,000
1864	75,000	1876	100,000	1887	42,000
1865	165,000	1877	246,000	1888	59,000
1867	170,000	1878	240,000	1890	25,000
1870	476,000	1879	176,000	1895	50,000
1871	295,000	1880	402,000		
Total					$5,006,700

Bonds becoming due during the remainder of the present fiscal year, $57,000.

Under the ordinance of temporary loans there were negotiated in St. Louis $75,000, and in New York and Boston $175,000, at the rate of 6 per cent per annum interest, all of which has been paid; so that the city owes nothing in the shape of temporary loans, and has sufficient funds in New York to meet the maturing interest of the present month.

The amount of the unpaid bills in the Auditor's office on the 1st instant was $9,522 75.

TAXATION.

Whole value of real and personal property	$102,408,230
The tax on which is	10,801,901
To which might be added the value of property exempt from taxation, amounting to	7,031,807

The tax on which, if assessable, would be $73,478 98; which makes an aggregate of property amounting to $109,440,037, and gives a tax of $1,106,498.

Amount of money in the treasury on the 1st day of October, was	$88,450 64
Receipts	831,530 28
Disbursements	829,500 80
Balance in treasury April 7th	89,128 46
Which, added to, as above	831,530 28
Makes	$920,558 74
Amount paid out of the treasury for six months, for the improvement of streets	183,080 00

POPULATION, TAXATION, AND REVENUE, AND THE RATIO OF INCREASE OF EACH.

	Population.	Value of real estate.	Revenue.	Per cent increase of population.	Per cent increase of property.	Per cent increase of revenue.
1810	1,400	$174,516		...	...	...
1820	4,928	1,024,440	$4,164 58	252	662	...
1830	5,852	1,330,616	14,291 89	19	78	243
1840	16,469	8,576,662	119,173 66	181	368	734
1850	74,439	29,676,649	433,035 99	352	246	264
1860	162,179	102,409,230	1,453,856 16	115	245	235

Since the Controller's last report, he has received from various sources of revenue, such as redemption property, markets, common rents, &c., $32,121 93.

ST. JOSEPH IN 1850 AND IN 1860.

The St. Joseph *Gazette* says:—We are indebted to Mr. ALLEN MCNEW, the obliging City Marshal, for the following statistics of our city, and list of property holders who pay over one hundred dollars taxes to the city. We refer with pride to the rapid advancement of St. Joseph, both in population and wealth, during the last ten years. In 1850 St. Joseph was better known as "Robidoux's Landing" or "Black Snake Hills," and possessed but a population of 2,165; in 1860, with a population of 12,605, (as reported by the City Assessor,) her notoriety as one of the most important commercial points in the West is co-extensive with the whole country. In ten years she has grown from almost a wilderness to be the second city in size and importance west of the Mississippi River. The whole amount of taxable property within the city limits, was—

In 1850 ..... $582,616 | In 1860 ..... $5,124,249

And the revenue paid into the treasury arising therefrom was—

In 1850 ..... $2,913 18 | In 1860 ..... $55,259 80

CITY WEEKLY BANK RETURNS.

NEW YORK BANK RETURNS.—(CAPITAL, JAN., 1860, $69,333,632; 1859, $68,050,755.)

	Loans.	Specie.	Circulation.	Deposits.	Average clearings.	Actual deposits.
Jan. 7	124,597,663	17,868,734	8,539,063	97,493,709	22,654,854	74,808,855
14	123,582,414	18,740,866	8,090,548	99,247,743	23,863,980	75,883,763
21	123,845,931	19,233,194	7,880,865	99,644,128	22,813,547	76,880,581
28	123,088,626	20,063,739	7,760,761	98,520,793	21,640,967	76,879,826
Feb. 4	124,091,982	19,924,801	8,174,450	99,476,430	21,898,736	77,577,694
11	123,336,629	19,787,567	8,185,109	98,146,463	21,674,908	76,471,055
18	124,206,031	20,591,189	8,050,001	100,887,051	22,061,811	78,325,240
25	124,398,239	20,773,896	7,928,595	100,622,481	22,151,504	78,470,977
Mar. 3	125,012,700	23,086,812	8,165,026	103,663,462	22,787,290	80,876,172
10	127,302,778	21,861,180	8,419,633	104,813,906	23,791,958	81,021,948
17	127,562,848	23,171,833	8,380,999	108,560,981	25,562,858	82,998,123
24	127,613,507	23,286,204	8,335,266	107,505,895	25,397,976	82,107,419
31	128,388,223	23,420,759	8,444,827	106,311,554	22,889,523	83,422,031
Apr. 7	130,606,731	22,599,182	8,929,228	109,193,464	25,656,629	83,536,835
14	129,919,015	23,626,982	8,775,297	109,153,863	24,256,270	84,897,593
21	128,448,868	23,233,814	8,790,459	108,145,233	25,758,735	82,386,498
28	127,085,667	23,279,809	8,749,048	103,206,723	21,391,290	81,815,433
May 5	127,479,520	23,815,746	9,391,861	108,505,388	26,546,063	81,959,325
12	126,184,532	22,780,387	9,153,811	108,038,848	27,802,174	80,236,674
19	124,938,389	23,735,193	9,035,522	106,229,724	25,339,444	80,890,280
26	125,110,700	23,431,773	8,826,473	104,433,136	24,309,496	80,123,640
June 2	124,792,271	24,535,457	8,774,063	104,268,785	22,888,107	81,380,678
9	125,431,963	23,785,581	8,999,948	103,386,091	22,776,108	80,609,983
16	125,399,997	24,110,553	8,828,786	104,031,268	22,492,614	81,538,654
23	125,886,565	23,850,921	8,779,115	102,787,035	22,116,242	80,620,813
30	127,208,201	22,484,250	8,745,182	102,496,762	21,309,053	81,187,709
July 7	127,244,241	22,751,694	9,343,727	103,450,426	22,119,106	81,331,320
14	127,123,166	23,641,357	8,075,528	106,899,678	23,456,447	82,943,231
21	128,427,489	23,443,644	8,833,619	107,717,216	23,457,781	84,259,435
28	129,074,298	23,099,726	8,760,252	105,524,100	21,239,450	84,284,650
Aug. 4	130,118,247	22,128,189	9,176,386	107,264,777	23,417,789	83,846,988
11	129,855,179	21,579,740	9,129,885	105,505,399	22,626,292	82,879,107
18	129,950,346	21,008,701	9,088,648	105,690,481	22,934,365	82,756,116
25	130,578,997	20,119,779	9,142,006	104,423,122	22,433,949	81,989,173
Sept. 1	129,029,175	19,035,029	9,253,682	102,229,586	22,561,086	79,663,998
8	127,999,839	19,187,713	9,535,824	101,185,086	24,072,405	77,112,681
15	127,002,728	18,960,749	9,494,332	101,117,627	24,257,872	76,859,755
22	125,802,644	18,988,603	9,480,871	101,311,780	25,556,849	75,754,931
29	124,849,426	20,177,986	9,487,637	101,533,834	25,150,441	76,383,393
Oct. 6	123,837,157	20,147,828	9,570,507	103,281,058	28,104,322	75,176,736
13	122,307,138	20,273,708	9,337,283	100,753,185	25,930,584	74,822,601
20	121,903,502	22,115,228	9,261,990	104,092,356	27,837,519	76,554,837
27	123,362,626	22,798,590	9,123,103	106,999,379	28,933,760	78,065,619
Nov. 3	125,284,584	22,194,982	9,429,423	109,853,013	28,673,601	79,679,412
10	125,636,715	21,125,429	9,548,112	105,551,805	26,526,509	79,025,296

BOSTON BANKS.—(CAPITAL, JAN., 1859. $35,125,433; 1860, $37,258,600.)

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 2 ..	59,807,566	4,674,271	6,479,488	18,449,305	7,545,222	6,848,374
16 ..	60,068,941	4,478,841	6,770,624	17,753,002	7,867,400	6,735,283
23 ..	59,917,170	4,182,114	6,486,139	17,378,070	7,784,169	6,516,532
30 ..	59,491,387	4,172,325	6,199,485	17,483,054	7,383,370	6,517,541
Feb. 6 ..	59,705,422	4,249,594	6,307,922	17,900,002	7,259,703	6,656,460
13 ..	59,993,784	4,462,698	6,364,320	17,271,596	7,426,589	6,593,702
20 ..	60,113,886	4,577,384	6,305,537	17,597,881	7,430 060	6,549,382
27 ..	59,927,917	4,714,034	6,411,573	18,020,239	7,700,530	7,480,954
March 5 ..	59,993,784	5,034,737	6,396,656	18,645,621	7,736,290	7,768,074
12 ..	59,885,196	5,328,610	6,430,643	18,393,293	7,715,663	7,390,935
19 ..	60,258,208	5,446,840	6,405,084	18,660,205	.....	.....

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
26 ..	60,180,209	5,627,961	6,328,273	18,742,817	8,351,016	7,804,222
Apr. 2 ..	60,050,953	6,045,703	6,340,263	19,262,894	8,473,775	8,080,218
9 ..	60,668,559	6,320,551	7,753,491	20,469,893	9,206,161	9,788,121
16 ..	61,189,629	6,289,719	7,267,165	20,291,620	9,160,868	8,314,312
23 ..	61,035,965	6,315,952	7,152,766	20,266,917	9,055,077	8,188,121
30 ..	61,259,552	6,317,949	6,992,903	20,195,951	9,273,558	7,948,086
May 7 ..	61,614,199	6,311,714	7,322,813	20,810,086	9,116,514	8,324,391
14 ..	61,744,290	6,263,535	7,076,071	20,758,862	9,210,132	8,209,699
21 ..	61,724,621	6,266,919	7,081,306	20,726,996	9,197,894	8,241,899
28 ..	61,258,986	6,201,118	6,660,695	20,320,518	9,057,822	8,272,557
June 4 ..	61,585,669	6,192,455	6,800,711	20,656,295	9,172,878	8,366,511
11 ..	62,346,519	6,300,700	7,090,282	20,228,677	9,629,483	7,857,489
18 ..	63,085,953	6,322,698	7,165,453	20,677,536	9,988,840	7,991,098
25 ..	63,557,155	6,262,930	7,188,326	20,750,673	10,307,194	8,188,802
July 2 ..	64,172,028	6,059,370	6,925,022	20,828,714	10,300,178	7,527,888
9 ..	65,039,459	6,087,718	7,932,653	21,133,175	11,804,893	9,105,876
16 ..	65,153,413	5,685,920	7,560,686	20,312,421	11,098,306	7,995,222
23 ..	64,852,961	5,335,523	7,523,745	19,751,318	11,093,127	8,158,425
30 ..	64,460,289	5,212,470	6,848,884	19,296,454	10,353,708	6,961,414
Aug. 6 ..	64,777,968	5,164,006	7,127,254	19,610,274	9,923,931	7,378,456
13 ..	64,840,527	5,128,628	7,075,440	19,157,661	9,851,112	6,816,650
20 ..	64,650,278	5,063,925	7,107,097	18,700,624	9,772,788	6,761,286
27 ..	64,216,345	4,966,105	6,790,847	18,965,057	9,556,546	6,956,287
Sept. 3 ..	64,054,818	5,051,016	6,759,683	19,235,884	9,681,885	7,364,997
10 ..	64,566,627	5,330,357	7,241,099	19,297,692	9,483,486	7,288,107
17 ..	64,739,871	5,881,366	7,078,175	19,032,822	9,479,905	6,755,991
24 ..	64,639,800	5,376,494	7,151,186	19,458,033	9,456,841	7,218,410
Oct. 1 ..	64,662,239	5,377,112	7,188,844	19,900,786	9,439,696	7,525,447
8 ..	64,671,820	5,315,009	7,951,028	20,811,889	9,504,474	8,639,105
15 ..	64,438,073	5,277,370	7,761,043	20,608,408	9,419,914	8,305,406
22 ..	64,213,174	5,196,693	7,966,762	20,606,306	9,708,676	9,061,273
29 ..	63,822,365	5,089,490	7,542,859	20,259,916	9,070,687	8,215,458
Nov. 5 ..	64,040,382	4,856,055	7,607,932	20,096,590	9,015,647	8,186,684

PHILADELPHIA BANKS.—(CAPITAL, JAN., 1860, $11,783,190.)

Date.	Loans.	Specie.	Circulation.	Deposits.	Due banks
Jan. 2....	25,386,387	4,450,261	2,856,601	14,982,919	2,619,192
9....	25,248,051	4,453,252	2,676,628	14,161,437	2,596,212
16....	25,275,219	4,561,998	2,672,730	14,934,517	2,563,449
23....	25,445,737	4,514,579	2,644,191	15,064,970	2,601,271
30....	25,526,198	4,535,321	2,601,750	15,401,915	2,619,573
Feb. 6....	25,493,975	4,669,929	2,656,310	15,409,241	2,574,015
13....	25,493,975	4,669,929	2,656,310	15,409,241	2,574,015
20....	25,458,354	4,581,356	2,663,695	14,864,302	2,782,806
27....	25,553,918	4,706,108	2,653,192	14,590,092	3,115,010
Mar. 5....	25,742,447	4,816,052	2,697,108	15,192,971	3,133,312
12....	25,742,447	4,816,052	2,697,108	15,192,971	3,133,312
19....	25,882,077	4,873,419	2,783,345	15,205,432	3,209,553
26....	26,043,772	4,992,542	2,784,773	15,693,622	3,198,530
April 2....	26,405,229	5,060,274	2,858,812	15,553,269	3,652,757
9....	27,214,254	5,209,576	3,528,762	15,528,762	4,085,695
16....	27,444,580	5,415,711	3,252,186	16,012,140	4,164,678
23....	27,545,351	5,464,280	3,154,285	16,618,616	3,985,110
30....	27,571,002	5,453,470	3,037,846	16,529,891	3,902,514
May 7....	27,590,212	5,477,019	2,968,444	16,763,609	3,731,987
14....	27,463,831	5,537,360	2,944,215	16,489,872	4,209,845
21....	27,401,926	5,367,416	2,870,617	16,422,835	4,085,882
28	27,283,932	4,886,579	2,818,719	15,884,903	3,974,369
June 4....	27,171,002	4,582,610	2,824,471	15,620,293	3,744,431
11....	27,046,016	4,183,667	2,810,552	15,698,909	3,128,287
18....	26,882,709	4,222,644	2,725,269	15,642,639	3,109,639
25....	26,780,583	4,329,638	2,654,508	15,643,433	3,060,615
July 2....	26,835,863	4,305,866	2,960,381	15,824,391	3,159,819

	Loans.	Specie.	Circulation.	Deposits.	Due bank.
9....	26,535,268	4,305,866	2,960,381	15,824,391	3,159,819
16....	26,878,435	4,403,157	2,859,852	15,796,205	3,313,195
23....	26,842,743	4,558,641	2,821,082	15,966,734	3,099,567
30....	26,851,776	4,249,304	2,785,718	16,085,967	3,211,855
Aug. 6....	26,936,227	4,800,443	2,837,267	16,369,525	3,097,889
13....	26,830,307	4,768,405	2,849,340	15,671,260	3,261,584
20....	26,835,337	4,771,772	2,854,653	15,588,318	3,275,683
27....	27,095,028	4,757,917	2,835,524	15,923,769	3,185,826
Sept. 3....	27,095,028	4,257,917	2,835,524	15,923,769	3,235,107
10....	27,224,180	4,753,709	2,891,376	16,108,815	3,243,168
17....	27,492,859	4,741,624	2,909,887	16,315,516	3,305,117
24....	27,760,486	4,632,878	2,887,640	16,453,442	3,151,218
Oct. 1....	27,933,753	4,676,099	2,832,280	16,852,538	3,300,354
8 ...	28,113,980	4,561,947	3,005,854	16,879,463	3,183,699
15....	28,119,333	4,507,980	3,016,060	16,786,933	3,124,499
22....	28,233,640	4,567,435	2,888,304	16,861,020	3,126,237
29....	28,305,277	4,417,421	2,849,768	16,815,563	3,143,517
Nov. 5....	27,900,837	4,167,967	2,887,613	16,739,326	2,659,627

NEW ORLEANS BANKS.—(CAPITAL, JAN., 1860, $18,917,600.)

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
Jan. 7 ..	25,022,456	12,284,448	12,038,494	18,563,804	7,323,530	1,557,174
14 ..	24,928,909	12,336,735	12,417,847	18,678,233	7,410,860	1,387,704
21 ..	24,699,024	12,821,411	12,809,512	18,664,855	7,423,629	1,377,796
28 ..	24,916,431	12,818,159	12,882,184	19,677,121	8,144,681	1,603,763
Feb. 4 ..	25,145,274	12,750,642	13,215,494	19,565,305	8,003,380	1,613,036
11 ..	25,197,351	12,741,581	13,243,924	19,244,847	7,349,365	1,396,150
18 ..	25,005,952	12,894,521	13,458,989	19,903,519	7,856,609	1,470,787
25 ..	24,897,286	12,945,204	13,600,419	19,218,590	8,083,929	1,685,526
Mar. 3 ..	24,946,210	12,952,002	13,860,899	20,116,272	8,027,049	1,092,475
10 ..	24,088,800	13,089,092	13,726,554	19,711,423	8,582,012	1,601,149
17 ..	24,054,845	12,729,356	13,797,154	19,304,618	8,498,790	1,718,310
24 ..	23,882,766	12,610,790	13,835,755	19,102,068	8,342,599	1,738,246
31 ..	23,674,714	12,437,195	13,975,624	18,681,020	8,149,061	1,610,499
Apr. 7 ..	23,107,740	12,368,071	14,100,890	18,070,209	8,560,117	1,942,056
14 ..	22,422,203	12,290,539	13,638,089	17,849,018	8,179,441	1,608,463
21 ..	22,380,033	12,100,687	12,999,204	18,380,033	7,649,069	1,649,060
28 ..	21,487,974	11,910,361	12,783,749	17,699,538	7,686,684	1,877,017
May 5 ..	21,487,974	11,910,361	12,783,749	17,699,538	7,686,684	1,877,017
12 ..	20,545,529	11,672,364	12,258,444	17,442,974	7,213,833	1,763,871
19 ..	19,385,119	11,706,007	12,163,609	17,260,226	6,909,386	1,680,480
26 ..	18,588,492	11,593,719	11,900,864	17,938,774	6,599,676	1,596,210
June 2 ..	18,282,807	11,191,024	11,791,799	16,985,565	6,173,783	1,459,051
9 ..	17,423,118	11,072,236	11,572,259	16,989,587	5,958,996	1,442,041
16 ..	16,864,692	10,693,389	11,389,389	16,105,556	5,538,830	1,665,076
23 ..	16,821,969	10,223,276	11,188,434	15,319,947	5,067,682	1,739,481
July 7 ..	16,627,125	9,883,812	10,921,057	14,671,491	4,545,395	1,601,540
14 ..	16,795,836	9,693,954	10,695.884	14,557,417	4,123,242	1,401,804
21 ..	16,945,426	9,544,793	10,310,824	14,326,547	3,706,020	1,512,608
28 ..	17,802,024	9,607,448	10,071,383	14,358,384	3,219,947	1,163,961
Aug. 4 ..	19,006,951	9,760,130	9,786,684	14,264,107	2,900,039	1,318,398
11 ..	19,383,879	9,846,131	9,526,934	14,368,664	2,565,150	1,182,381
18 ..	20,313,484	9,801,183	9,357,964	14,107,235	2,119,789	1,299,462
25 ..	21,332,818	9,900,424	9,263,874	13,614,301	1,756,034	1,346,814
Sept. 1 ..	22,049,958	9,907,517	9,196,144	13,803,771	1,431,300	1,081,223
8 ..	22,241,708	9,939,917	9,056,744	13,555,731	1,308,873	929,618
15 ..	23,144,157	9,851,218	8,929,404	13,546,294	1,344,890	1,078,178
22 ..	23,871,973	9,816,247	8,872,808	13,403,925	1,463,612	1,077,600
29 ..	24,285,360	9,691,812	8,752,344	13,978,081	2,016,320	880,638
Oct. 6 ..	24,670,487	9,765,171	8,683,759	14,084,071	2,186,911	810,469
13 ..	24,630,084	9,933,431	8,344,109	14,336,090	2,291,273	810,460
20 ..	24,670,161	9,988,225	8,296,660	14,759,556	3,087,312	797,404
27 ..	24,456,180	10,008,169	8,163,109	15,581,396	3,940,930	691,524

PITTSBURG BANKS.—(CAPITAL, $4,160,200.)

	Loans.	Specie.	Circulation.	Deposits.	Due banks
Jan. 16.....	7,202,367	980,530	2,080,548	1,527,548	304,562
23.....	7,060,471	1,022,273	2,012,478	1,545,103	255,076
30.....	6,989,320	1,003,037	1,896,363	1,555,686	265,804
Feb. 6.....	6,984,209	997,589	1,907,323	1,609,692	230,426
13.....	6,939,052	951,638	1,883,093	1,602,311	191,222
20.....	6,957,621	988,306	1,868,598	1,643,703	175,051
27.....	7,022,230	991,377	1,821,283	1,760,957	224,434
Mar. 5.....	7,101,459	1,018,255	1,871,873	1,768,879	273,343
12.....	7,035,624	999,093	1,901,543	1,651,216	197,007
19.....	7,066,774	1,004,750	1,945,328	1,636,887	198,556
26.....	7,038,891	981,560	1,980,732	1,572,130	192,411
Apr. 2.....	7,166,377	1,005,415	2,085,583	1,601,167	191,101
9.....	7,206,737	990,962	2,072,373	1,693,230	171,100
16.....	7,159,568	1,018,445	2,071,878	1,651,362	187,255
23.....	7,278,279	1,156,278	2,024,188	1,897,498	240,148
30.....	7,234,761	1,141,373	1,995,053	1,913,537	175,671
May 5.....	7,234,761	1,141,373	1,995,053	1,913,537	175,671
14.....	7,268,197	1,088,851	2,011,258	1,890,810	215,765
19.....	7,196,493	1,133,719	2,022,988	1,906,773	213,944
27.....	7,190,192	1,122,057	1,952,683	1,918,321	206,816
June 4.....	7,282,963	1,089,751	1,907,248	1,919,908	277,978
11.....	7,214,889	1,126,808	1,919,688	1,892,800	240,728
18.....	7,247,541	1,102,446	2,029,558	1,743,915	271,062
25.....	7,291,888	1,150,248	2,048,358	1,779,752	315,858
July 14.....	7,310,663	1,068,974	2,071,443	1,818,515	239,832
21.....	7,294,391	1,083,220	2,073,593	1,846,879	205,011
28.....	7,215,944	1,098,084	2,069,803	1,861,817	167,671
Aug. 6.....	7,203,057	1,130,002	2,018,628	1,860,348	234,346
13.....	7,158,260	1,123,027	1,990,498	1,858,759	175,924
20.....	7,093,091	1,152,198	2,007,653	1,859,418	239,790
27.....	7,047,761	1,167,384	2,084,758	1,843,750	232,181
Sept. 3.....	7,145,776	1,159,423	2,124,008	1,905,667	240,419
10.....	7,139,564	1,225,151	2,196,573	1,904,823	222,155
17.....	7,121,227	1,188,707	2,299,438	1,819,248	210,274
24.....	7,107,947	1,246,526	2,341,363	1,831,865	238,058
Oct. 8.....	7,109,573	1,318,187	2,354,303	1,962,570	211,260
15.....	7,043,506	1,316,266	2,334,208	1,959,786	186,111
22.....	7,122,862	1,317,051	2,443,188	1,924,511	215,883
29.....	7,109,206	1,379,594	2,424,788	1,949,736	244,903
Nov. 5.....	7,262,599	1,400,485	2,416,713	2,038,882	250,121

ST. LOUIS BANKS.

	Exchange.	Circulation.	Specie.
Jan. 7.....	4,373,543	538,555	662,755
14.....	4,467,513	520,305	642,497
21.....	4,352,699	502,175	580,754
28.....	4,290,563	495,380	563,335
Feb. 4.....	4,149,236	457,095	590,502
11.....	4,048,593	424,605	625,043
18.....	3,906,896	391,605	639,450
25.....	3,951,433	399,085	680,877
March 3.....	3,891,263	395,905	689,301
10.....	3,998,827	377,935	651,302
17.....	3,963,924	377,355	641,252
24.....	3,880,915	356,245	664,179
31.....	3,790,291	340,095	685,984
April 7.....	3,862,454	344,630	657,321
14.....	3,868,345	325,950	676,858
21.....	3,852,614	314,360	601,014
28.....	3,694,877	306,750	678,234
May 5.....	3,609,648	301,300	746,176

		Exchange.	Circulation.	Specie.
	12	3,683,644	294,115	808,918
	19	3,695,707	285,140	826,793
	26	3,767,986	273,540	671,669
June	2	3,879,617	255,210	627,942
	9	3,823,735	253,780	656,358
	16	3,885,763	244,850	682,917
	23	3,967,032	235,935	705,764
	30	3,825,423	206,749	804,983
July	7	3,736,695	199,385	791,729
	14	3,392,096	152,025	684,358
	21	3,679,192	191,375	752,397
	28	3,625,333	177,620	658,852
Aug.	4	3,526,098	173,310	633,795
	11	3,540,196	176,115	637,310
	18	3,560,267	188,375	714,046
	25	3,599,470	220,605	728,645
Sept.	1	3,588,644	222,600	700,897
	8	3,630,708	233,190	714,496
	15	3,778,185	240,660	709,193
	22	3,814,868	253,605	679,617
	29	3,995,986	240,300	722,868
Oct.	6	4,027,365	255,765	677,522
	13	4,125,563	254,950	646,195
	20	4,262,411	239,210	552,636
	27	4,391,887	277,235	570,566
Nov.	3	4,477,847	315,300	597,780

PROVIDENCE BANKS.—(CAPITAL, $14,903,000.)

	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 2	19,144,854	316,917	2,011,336	2,635,486	938,508
Feb. 6	19,144,846	326,297	1,958,540	2,566,168	921,779
Mar. 3	19,009,255	342,965	1,917,593	2,598,169	970,971
Apr. 1	18,686,210	343,992	1,952,022	2,640,170	1,040,260
May 7	18,893,653	448,413	2,045,590	2,773,248	1,356,071
June 4	18,891,907	422,726	1,938,254	2,844,012	1,210,104
July 2	19,248,061	430,128	2,158,904	2,790,587	1,115,951
Aug. 6	19,530,296	397,286	2,218,347	2,748,678	1,169,800
Sept. 3	19,566,718	357,138	2,128,957	2,526,948	1,082,109
Oct. 1	19,834,817	337,851	2,183,847	2,590,103	894,204
Nov. 5	19,901,828	368,551	2,092,267	2,723,904	.....

THE CLEARING-HOUSE.

The annual meeting and election of committees of the Clearing-house, took place October 3. The members for the old year now expired and for the coming year, with the names of the banks in which they are engaged, are as follows:—

Clearing-house Committee. Lucius Hopkins, Importers'; E. W. Dunham, Corn Exchange; Wm. T. Hooker, Continental; E. H. Arthur, Union; R. H. Lowry, Republic; GEORGE S. COE, American Exchange, Chairman; J. D. Vermilye, Merchants'; H. L. Jaques, Metropolitan; E. D. Brown, Mechanics and Traders'; J. M. Price.

Committee on Admissions. WM. F. HAVEMEYER, North American, Chairman; D. R. Martin, Ocean; Edward Haight, Commonwealth; C. F. Hunter, People's; H. Blydenburgh, Nassau; T. Tileston, Phœnix; W. F. Havemeyer, North American; R. Withers, State; Moses Taylor, City.

Committee on Suspensions. B. F. WHEELWRIGHT, Mechanics and Traders', Chairman; Jacob Campbell, Jr., Pacific; Gideon De Angelis, Mechanics'; R. H. Haydock, Fulton; A. S. Frazier, Seventh Ward; W. H. Macy, Leather Manufacturers'; A. V. Stout, Shoe and Leather; J. M. Morrison, Manhattan; R. S. Oakley, American Exchange; J. Barnes, Merchants' Exchange.

Committee on Arbitration. JAMES GALLATIN, National, Chairman; John Thompson, Irving; George W. Duer, State; F. A. Platt, Corn Exchange; E. J. Blake, Mercantile; Wm. Hulsey, Seventh Ward; Parker Handy, Ocean; R. W. Howes, Park; C. F. Hunter, People's; R. H. Haydock, Market.

The salary of the manager of the Clearing-house, GEORGE D. LYMAN, which was cut down last year, has been again raised to $4,000:—

AGGREGATE TRANSACTIONS OF THE CLEARING-HOUSE FOR SIX YEARS, ENDING OCTOBER, 1859; TO WHICH WE ADD THE BANK CAPITAL OF THE CITY FOR THE MONTH OF SEPTEMBER EACH YEAR.

One year to October 1.	Exchanges.	Balances paid.	Bank capital.
1854.....	$5,750,455,987 06	$297,411,493 69	$48,400,000
1855.....	5,362,912,098 38	289,694,137 14	48,683,000
1856.....	6,906,213,328 37	334,714,489 33	54,000,000
1857.....	8,333,226,718 06	365,313,901 69	59,703,000
1858.....	4,756,664,386 09	314,238,910 60	68,041,000
1859.....	6,448,005,956 01	363,984,682 56	68,933,000
1860.....	7,231,143,056 69	308,693,488 37	69,760,000
Total	$44,788,621,530 66	$2,274,051,051 38	

COINS OF JAPAN.

The following interesting article on the subject of Japan coins and coinage generally, which we copy from the *South Carolinian*, of Columbia, is ascribed to the pen of the learned assayer of the North Carolina mint:—

The appearance of Japanese in the United States, and constant commercial intercourse with the countries of the East, convince us that many arts generally attributed to the invention of distinct eras in Europe are solely copies of ancient practices, which have been quietly introduced into modern service.

The employment of gold and silver for mercantile exchanges is recorded from early ages. We would not suggest that all the arts of coinage as conducted in mints at the present day are identical with ancient customs; but the value of the precious metals are appreciated exactly by the same definite principles. Such arts, simplified for the intercourse or the necessities of commerce, have been varied by advances in physical knowledge and taste.

An opportunity has been recently afforded to examine a quantity of Japanese coins, both gold and silver, of different values, by the courtesy of a gentleman connected with the house of BALL, BLACK & Co., in New York, where large oval cobangs of gold and itzebus of silver, cast in moulds and duly impressed for general distribution, present an earlier type of coinage than our own; though conducted by different processes, each proposes to perform the same important offices for trade.

Exertions were made at the mint of the United States in Philadelphia to satisfy the special demands of the Japanese envoys with regard to the examination and decision of the exact values of their coins compared with those of other commercial countries, while we have been offered by them some means to comprehend an Eastern plan for money accounts. None of the Japanese ambassadors sent to this country were instructed in the arts of coinage, but were directed to have assays made of entire coins, possessing little faith in processes conducted upon so small a scale as we confide in from modern experience. The chief men could give no information with regard to their own practices in mintage, nor whether their artisans used mineral acids or not; but after the affair was satisfactorily over, they stated to the officers of the mint that, although the standards are kept secret in Japan, they aim to make their gold equal to 573-thousandths fine, (*i. e.* 57.3 per cent of pure metal.) So they know something about assaying. In order to accommodate the envoys and fulfill the special instructions by which they acted, the assayer at the mint made preparations to ascertain the ex-

act amount of fine gold or fine silver in each piece of coin separately, and for that purpose used large cupels for the assay of whole coins, as the Japanese urged; while at the same time he put some of our own coins through the same clumsy process. Strange to them, in all instances the result proved the same as by the ordinary more easy trial of a smaller portion, (the half of a French gramme;) the fact being assured, by constant experience in metallurgical manipulations, that any portion of a coin or bar of well melted metal contains exactly the same proportions throughout its mass. The exceptions to this are rare and well understood.

The Japanese gold coins are alloyed with silver, except a minute fraction of copper. The time required by their insisted upon processes for separating the metals was much greater than by those of our modern art; but the Japanese ambassadors patiently sat it out during seven hours, and expressed great pleasure at the result, which proved their practices and our own to manifest precisely the same quality of fine metal in their coins.

The dignitaries dined at the mint on raw fish, half-boiled chicken, green peas, and rice; and, during the operations for trials of their coins, made frequent reference to their pipes, puffing the smoke through their nostrils, not long at a time, though quite contrary to mint usage.

By means of neat ivory balances, formed like a Roman steel-yard—if one may say so—the Japanese tried the relations of the standard troy weights at the mint to their own metrical proportions. Ten grains troy were found to equal 1.7 canderine; 100 grains troy equaled 1.7 mas; hence the canderine equals 6 grains troy very nearly. Their system of notation is decimal—10 canderines = 1 mas; 10 mas = 1 tael.

There is a question now proposed, whether the word "tael" has its root in the old "tekel" found among the Chaldees, equivalent to the "shekel" of the Hebrews. We are told both terms signify "to weigh." In Siam, to this day, they have a "tical;" "tekaul;" and a "tael" in China. We know, from the best commentators on the Hebrew Scriptures, that the "shekel," the money of account of ancient Tyrian commerce, was held equal to one-half ounce avoirdupois weight, the equivalent of 219 grains of troy standard.

In remote ages, as now in China, the common standard of fineness was as near an approximation to perfect purity in the metals as it was possible for the refiner to obtain by a dry process. A full and perfect ounce avoirdupois, of fine silver, (*i. e.*, 438 grains troy,) reduced to modern moneys, as most intelligible to us, is worth 120 cents. The half ounce, or "shekel weight," the old Hebrew money of account, (= 219 grains troy,) thus appears equal to 60 cents of our currency, which is its accredited value.

By a fanciful belief in the power of numbers, or from some practical advantages in exchanges, several Eastern nations, instead of dividing their standard by two, have subdivided the silver ounce by three; so that the silver rupee of India, and the silver itzebu of Japan, are found very nearly of the same value as 40 cents of our money, precisely equivalent in value to one-third of the commercial ounce avoirdupois of uncoined but purified silver. The proportions called avoirdupois by us are well known throughout China, as well as in all the inland trade of Asia and Africa. Such close relations between ancient and modern ratios in weight become highly important in our trade with Eastern nations. By proper and equitable adjustment, the standard of the United States may be made to regulate their various currencies without the incessant destruction of expensively prepared coins, which now prevails, for want of one common standard for national reference and adjustment.

The whole system of metallic valuation depends upon weights, as measures of quantities, qualities, and proportions. Equal weights of the precious metals of the same standard of purity or fineness are equivalent in value everywhere throughout the commercial world. Their mercantile worth does not depend upon manufacture or coinage, which affords an undoubted convenience for the people in the ordinary payments and transactions of trade. Yet the values of gold and silver are intrinsic, and it has sometimes been found that bars of fine gold bear

a premium above coins for exportation, on account of facilities in transportation, and calculations at a distant market.

The limited intercourse of the Japanese hitherto with foreigners may have caused the introduction of certain alterations in their ordinary proportions to control a contracted trade with Holland. Their coins are now found very much deteriorated in quality from the real standard of fineness common among Eastern nations; being composed mostly of equal parts of fine metal and alloy. The Japanese certainly understand the art of presenting a very fine surface to coins of inferior qualities, by a process called "pickling," well known among workers in precious metals.

We must ascertain something more of the special character of their commercial relations with strangers before we can decide the causes which have led to obvious changes in their currency within a limited period, for the values in the gold and silver coins of Japan have certainlyundergone some recent alteration. There is one point of high importance which seems wanting in modern Japanese currency—the adjustment of a fixed commercial proportion between gold and silver pieces.

The ratio which (after several trials of different proportions) was decided upon for the practice of the mint of the United States, was that of the avoirdupois of Spain, 16 to 1; which is found also to prevail throughout the commerce and exchanges of the vast empire of China. Some irregularities, either by intention or accident, have been admitted into the proportion of the value of silver to gold, which now expose the Japanese to great loss in exchanges, and have obliged them to place restrictions upon the exportation of gold.

BANKS IN PORTLAND.

The Portland banks have each declared a semi-annual dividend of 4 per cent, excepting the International, which is 3½ per cent:—

Banks.	Capital.	Dividend.	Amount.
Cumberland	$200,000	4 per cent.	$8,000
Canal	600,000	4 "	24,000
Casco	600,000	4 "	24,000
International	500,000	3½ "	17,500
Manufacturers and Traders'	250,000	4 "	10,000
Mechanics'	100,000	4 "	4,000
Merchants'	225,000	4 "	9,000
Total	$2,475,000		$96,500

The former boards of directors have been rechosen, excepting at the Manufacturers' and Traders' Bank, where Joshua Robinson, Esq., declined, he having faithfully served the bank since its organization, twenty-eight years, both as director and president. There is said to be but one similar case of long service in the Portland banks, and that is Nathaniel Warren, Esq., at the Canal, who has served over thirty years as a director.

The stockholders of the Merchants' Bank have voted to authorize the directors to petition the Legislature for an increase of capital to the amount of $75,000. This will make the whole capital stock $300,000.

NEW YORK STATE VALUATION AND TAXES.

The following is a statement showing the aggregate valuation of property in each county in the State for the year 1860, as fixed by the Board of Equalization of Taxes, in pursuance of chapter 312 of the laws of 1859; also showing the amount of State tax levied and to be levied for the years 1859 and 1860:—

	Tax for 1859, 2½ mills.	Valuation for 1860.	Tax for 1860, 3 5-6 mills.
Albany	$96,361 84	$39,044,737	$149,671 49
Alleghany	20,087 80	8,035,120	30,801 20
Broome	21,225 56	8,391,423	32,167 12
Cattaraugus	16,550 37	6,620,148	25,377 23
Cayuga	48,037 11	19,214,844	73,656 90
Chatauqua	35,675 26	14,270,102	54,702 06
Chemung	15,681 91	6,472,762	24,812 25
Chenango	27,406 01	10,500,000	40,250 00
Clinton	14,319 44	5,727,775	21,956 47
Columbia	45,913 58	18,365,440	70,400 82
Cortland	16,164 83	6,165,923	23,636 04
Delaware	20,525 88	8,210,352	31,473 02
Dutchess	77,448 20	29,979,280	114,920 57
Erie	116,894 60	47,251,841	181,132 06
Essex	9,560 07	3,824,027	14,658 77
Franklin	10,378 18	4,149,270	15,905 54
Fulton	10,136 03	4,054,412	15,541 91
Genesee	29,125 34	11,650,136	44,658 86
Greene	21,625 21	7,950,084	30,475 32
Hamilton	1,175 83	470,333	1,802 94
Herkimer	25,361 42	10,144,567	38,887 51
Jefferson	29,339 42	15,035,769	61,087 12
Kings	260,738 98	106,295,591	407,466 43
Lewis	12,488 00	4,495,200	17,231 60
Livingston	35,766 39	14,306,555	54,841 79
Madison	27,681 76	11,072,782	42,445 66
Monroe	65,580 19	26,732,076	102,472 96
Montgomery	18,385 19	7,354,077	28,190 63
New York	1,332,258 69	550,078,778	2,108,635 32
Niagara	32,059 56	12,823,822	49,157 98
Oneida	64,098 45	25,639,379	98,284 29
Onondaga	70,875 32	28,350,123	108,675 49
Ontario	41,113 94	16,445,575	63,041 31
Orange	62,070 64	24,525,254	94,013 47
Orleans	24,206 97	9,682,749	37,117 21
Oswego	35,635 92	14,254,368	54,641 74
Otsego	30,430 75	12,072,302	46,277 16
Putnam	17,785 14	6,114,035	23,437 21
Queens	55,857 71	21,343,083	81,815 15
Rensselaer	65,197 32	26,278,926	100,735 88
Richmond	24,321 00	9,728,402	37,292 21
Rockland	13,600 66	5,440,260	20,854 33
Saratoga	30,120 89	12,048,356	46,185 37
Schenectady	14,006 97	5,602,786	21,477 34
Schoharie	15,376 70	6,850,681	26,260 94
Schuyler	10,701 81	4,280,723	16,409 44
Seneca	19,523 87	8,159,547	31,278 26
St. Lawrence	39,083 40	15,633,359	59,927 88
Steuben	34,979 33	13,991,732	53,634 97
Suffolk	32,626 27	12,050,506	46,193 64
Sullivan	10,332 49	4,132,995	15,843 15
Tioga	14,870 80	5,818,318	22,418 55
Tompkins	19,685 66	7,874,205	30,184 68
Ulster	38,919 15	15,567,658	59,676 02
Warren	6,298 45	2,519,380	9,657 62
Washington	38,827 77	15,381,105	58,769 24
Wayne	34,642 89	13,887,157	53,234 10
Westchester	102,531 81	41,012,725	157,215 45
Wyoming	19,377 06	7,750,822	29,711 49
Yates	18,234 27	7,293,708	27,959 21
Total	$3,512,284 26	$1,419,297,520	$5,440,640 48

TAX OF 1859—2¼ MILLS.

For schools, ¼ of a mill, per chapter 180 laws of 1856.
For completion of canals, ¼ of a mill, per chapter 149 laws of 1859.
For general purposes, 1¼ mills, per chapter — laws of 1856.

TAX OF 1860—3 5-6 MILLS.

For schools, ¼ of a mill, per chapter 180 laws of 1856.
For canal debts, ¼ of a mill, per chapter 271 laws of 1859.
For completion of canals, ¼ of a mill, per chapter 213 laws of 1860.
For canal debts, 1¼ mills, per chapter 494 laws of 1860.
For general purposes, 1¼ mills, per chapter 425 laws of 1860.

NEW YORK CITY QUARTERLY BANK RETURNS.

The quarterly bank returns of the banks of this city, showing their aggregate liabilities and assets on September, 1860, as compared with 1852, 1858, and 1859, are as follows:—

LIABILITIES.

	September, 1852.	June, 1858.	June, 1859.
Capital	$36,701,750	$67,041,182	$68,645,014
Net profits	5,464,511	7,531,640	7,555,451
Circulation	8,678,664	7,080,396	8,128,072
Due other banks	21,826,604	28,275,878	23,744,605
Deposits	50,403,610	74,806,752	72,713,844
Miscellaneous	332,096	430,561	571,902
Total	$123,497,235	$185,166,404	$181,358,888

RESOURCES.

Loans	$88,815,464	$118,299,328	$118,543,934
Stocks, bonds, &c.	5,539,815	9,862,613	12,714,091
Real estate	2,702,410	5,815,368	6,055,947
Due from banks	5,424,207	5,538,023	6,213,431
Cash items	11,866,284	14,594,592	17,099,736
Specie	8,702,895	31,704,814	20,682,304
Overdrafts	446,160	51,606	49,445
Total	$123,497,235	$185,166,404	$181,358,888

LIABILITIES.

	March, 1860.	June, 1860.	September, 1860
Capital	$69,420,057	$69,758,777	$69,290,475
Net profits	7,040,516	8,055,235	7,559,329
Circulation	8,467,922	8,731,894	9,186,897
Due other banks	29,039,360	26,243,064	21,271,956
Deposits	79,926,804	80,536,393	81,283,120
Miscellaneous	451,203	572,262	1,029,951
Total	$194,355,862	$193,897,625	$189,621,728

RESOURCES.

Loans	$125,949,817	$125,139,007	$120,271,555
Stocks, bonds, &c.	12,975,447	13,267,842	13,081,452
Real estate	6,254,715	6,314,456	6,312,021
Due from banks	5,078,902	7,013,755	7,368,063
Cash items	20,871,237	19,037,997	22,418,015
Specie	23,172,656	23,054,622	20,116,447
Overdrafts	53,088	69,946	54,175
Total	$194,355,862	$193,897,625	$189,621,728

BANKS OF NEW HAMPSHIRE.

The following table represents the condition of the New Hampshire banks immediately before and immediately following the revulsion of 1857, compared with September, 1860 :—

LIABILITIES.

	September, 1857.	January, 1858.	September, 1860.
Capital	$4,041,000	$5,041,000	$4,961,000
Deposits	1,101,000	875,790	1,261,101
Circulation	3,469,000	2,299,728	3,353,351
Profits, &c.	1,395,000	528,321	444,671
Total	$10,006,000	$8,735,049	$10,120,131

RESOURCES.

	September, 1857.	January, 1858.	September, 1860.
Loans	$8,731,000	$7,389,813	$8,612,944
Specie	226,000	285,933	262,392
Deposits in other banks	835,000	829,170	983,152
Real estate	71,000	82,000	75,364
Bills of other banks	143,000	158,133	186,279
Total	$10,006,000	$8,735,049	$10,120,131

There are fifty-one banks in the State of New Hampshire, with an aggregate capital of nearly $5,000.000. Three of them have a capital of $200.000 each, viz. :—The Amoskeag Bank, Manchester, and the Piscataqua, Exchange, and Rockingham banks, of Portsmouth. Six have a capital of $150,000 each, and the remainder range from $50,000 to $100,000—no one having a capital exceeding $300,000. The bank circulation is only two-thirds of the capital in amount. Only three of the banks have a circulation exceeding $100,000 each, viz. :—Amoskeag, at Manchester, Manchester Bank, and State Capitol Bank, Concord. Twelve of these banks (out of fifty-one) have loans from $67,000 to $90,000 only. Of course they must be managed on a very narrow policy.

DEBT OF TENNESSEE.

The State of Tennessee is increasing its liabilities in support of railroads. The entire railroad schedule of Tennessee embraces 1,550 miles. The average cost per mile is $27,000. The State takes a first mortgage on the road, and as fast as it is ready for the iron, advances $10,000 per mile in bonds—1,220 miles are completed, and State aid granted; 280 miles to be completed within two years.

For the building of several large bridges the State advances, in addition to the $10,000 per mile, a stipulated portion of the cost of such structures. About $50,000 will cover this advance.

The debt of Tennessee in now in round numbers	$13,500,000
The future increase will be	2,500,000
Total, when the roads are all complete	$16,000,000

To wit. State 6 per cent bonds, $13,800,000 ; State indorsement on 6 per cent railway bonds, $2.200,000.

The ways and means for building the roads are :—

State aid secured by first mortgage	$16,000,000
Capital stock, held almost entirely in the State	27,000,000
Total cost	$43,000,000

Each road is bound to provide the interest on its amount of State aid, and when completed, to pay into the sinking fund 2½ per cent per annum on the amount of State aid.

Two of the roads are now paying dividends to the stockholders—one 6 and the other 8 per cent, and are also paying 2½ per cent to the sinking fund. In a few years the contributions to the sinking fund will be $400,000 per annum. This will be used in purchasing their own bonds.

STATISTICS OF TRADE AND COMMERCE

GRAIN PORTS OF THE LAKES.

It will be interesting to many readers of this Magazine, to see the exact figures showing the receipts of flour and grain at the primary receiving ports of the great lakes, from which come the bulk of imported breadstuffs to feed the Northeastern States and the hungry of Western Europe.

First on the list, and far before any other, is Chicago, the receipts and shipments of which have been kept before the public, in most of the leading commercial journals, and need not be repeated.

Next to Chicago stands Toledo, the large business of which has, hitherto, failed to attract much public notice. We give them here, in some detail, as published in the Toledo *Blade* of 1st November:—

RECEIPTS AT TOLEDO.

	Flour, barrels.	Wheat, bushels.	Corn, bushels.	Other grains, bushels.
August	76,573	1,186,868	545,001	20,666
September	134,998	1,429,024	500,898	17,983
October	108,344	736,440	504,899	34,965
Total	319,915	3,352,333	1,550,798	73,614

Milwaukee comes next, as reported by the Milwaukee *Sentinel*:—

	Flour, barrels.	Wheat, bushels.	Corn, bushels.	Other grains, bushels.
August	5,132	243,345	6,035	26,496
September	39,238	2,173,385	2,924	19,240
October	54,118	2,133,872	4,943	23,200
Total	98,488	4,550,602	13,902	68,936

Detroit follows Milwaukee, and for the same three months, received in flour and wheat, counted in bushels, as reported in the Detroit *Advertiser*, as follows:—

FLOUR AND WHEAT IN BUSHELS.

August	718,778
September	1,111,617
October	1,320,962
Total	3,144,317

Cleveland, according to the Cleveland *Herald*, received for the same three months, as follows:—

	Flour, barrels.	Wheat, bushels.	Corn, bushels.	Other grains, bushels.
August	25,563	81,463	9,644	4,013
September	40,361	60,844	5,258	1,369
October	30,350	32,912	12,091	3,555
Total	96,274	175,219	26,993	8,937

Detroit receives very little corn, and of other grains probably about the same as Toledo. Reduced to the measure of bushels, Detroit and Cleveland, which are, in some degree, rivals of Toledo in this business, the aggregate of the two compare with Toledo as follows:—

Three months receipts of breadstuffs at Toledo		bushels	6,576,319
" " "	Detroit.....	3,144,317	
" " "	Cleveland.....	692,519	
			3,836,836
Excess of Toledo over the two			2,739,483

The receipts of October, at Toledo, it will be seen, were considerably less than in September. This is attributable to the want of store room at Toledo, and the lack of shipping to take it away. It is probable that the same causes operated to keep back receipts at the other lake ports. J. W. S.

WEST INDIA EXPORTS.

EXPORTS OF SUGAR AND RUM FROM ALL THE BRITISH WEST INDIES AND THE COFFEE FROM JAMAICA.

	All West Indies. Sugar. Cwt.	Coffee from Jamaica. Pounds.	All West Indies. Rum. Galls.
1831.....slaves	4,103,800	22,256,950	7,844,157
1832.....	3,773,450	19,815,010	4,713,809
1833.....	3,646,205	9,866,060	5,109,975
1834.....apprentices	3,843,976	17,725,731	5,112,400
1835.....	3,524,209	10,593,018	5,453,117
1836.....	3,601,791	13,446,058	4,868,158
1837.....	3,806,775	8,955,178	4,418,349
1838..... .....free	3,520,676	13,551,795	4,641,210
1839.....	2,824,372	8,897,421	4,021,820
1840.....	2,214,764	7,279,670	3,780,979
1841..... ...	2,151,217	6,433,270	2,770,161
1842	2,314,213	7,048,914	2,097,747
1843.....	2,401,455	7,367,118	2,103,711
1844...	2,529,540	7,148,775	2,189,592
1845.....	2,695,850	5,021,209	2,469,185
1846.....	2,670,052	6,047,150	2,683,701
1847.....	2,215,010	6,421,122	3,328,983
1848....	2,800,144	5,684,941	2,986,979
1849.....	2,833,536	3,480,228	3,039,862
1850.....	2,950,244	3,127,255	2,902,064
1851.....	2,532,951	5,595,273	2,880,425
1852.....	3,376,372	7,127,680	2,899,684
1853.....	3,372,258	5,037,602	3,232,457
1854.....	3,167,245	5,990 672	3,226,594
1855.....	2,967,926	5,657,103	3,223,575
1856.....	3,150,075	3,328,147	3,424,407
1857.....	2,550,320	7,095,623	3,397,002
1858.....	3,259,927	6,208,101	3,010,033

THE TOBACCO TRADE OF VIRGINIA.

ANNUAL REVIEW OF THE RICHMOND TOBACCO MARKET.

In accordance with our annual custom, we present our readers with a review of the Richmond tobacco market for the year just ended. The average value of the tobacco and stems exported each year, during the past four "tobacco years" was as follows :—

In 1859-60	$101	In 1857-58	$134
In 1858-59	128	In 1856-57	163

The following table will show, at a glance, the receipts, inspections, exports, and stocks for five years past—details of which will be found under the appropriate heads. The stock now on hand in this city is unprecedented :—

	Receipts.	Inspections.	Exports.	Stocks 1st Oct.
1859–60	53,498	46,633	26,030	17,321
1858–59	47,444	41,797	22,715	9,711
1857–58	51,868	44,616	33,133	7,900
1856–57	38,718	30,534	20,143	8,924
1855–56	42,150	36,696	18,756	7,139

The figures showing the exports in '56 and '57 do not include coastwise shipments, no available record of them having been kept for those years.

We will insert here a comparison of the highest quotations of the past three years :—

	1860. July 10th.	1859. July 26th.	1858. Sept. 9th.
Lugs	$2 a $5	$4½ a $7½	$4½ a $8
Leaf, C to G	5 a 8½	7 a 9½	7½ a 12½
Fine shipping	9 a 12	10 a 14	13 a 16
Fine manufacturing	7 a 25	15 a 30	15 a 40

The closing quotations of the last four seasons were as follows :

	1857.	1858.	1859.	1860.
Lugs	$6½ a $9½	$4½ a $8½	$4½ a $6½	$1½ a $3½
Common leaf	10 a 11½	7½ a 9½	6½ a 7	3½ a 5
Middling to good	12 a 13	10 a 12	7½ a 11½	5½ a 7½
Fine shipping	13½ a 16½	12½ a 15	12½ a 13½	8 a 11
Fine manufacturing	14 a 25	15 a 30	10 a 20	10 a 20

RECEIPTS.

The following is a statement of the receipts of tobacco at Richmond, by canal and railroads, each year during the past five years :—

	Canal.	R. & P.	R. & D.	Va. C.	R. F. & P.	Total.
1859-60	15,296	8,624	17,481	8,800	3,297	53,498
1858-59	13,184	10,068	14,114	7,295	2,806	47,444
1857-58	16,284	8,539	15,799	8,876	2,370	51,868
1856-57	10,417	10,402	11,734	4,931	1,234	38,718
1855-56	14,954	8,276	12,494	5,100	1,326	42,150
Increase	2,115	....	3,367	1,605	491	5,954
Decrease	....	1,444	....	....	....	....

There were also received last season, 54 hhds. in the dock, and 20 by the York River Railroad since July 1st, this year, when our record commences. The excess of receipts over inspections is 6,835 hhds., against 5,647 hhds. for the previous year. This difference arises from the receipt of inspected tobacco (termed "Upland,") sent here for re-sale or transhipment.

The receipts of stems, last season, by canal and railroads, amounted to 4,491 hhds.; in 1858–9 to 2,875 hhds.

COMPARATIVE STATEMENT OF INSPECTIONS OF TOBACCO IN VIRGINIA, FOR THE YEARS ENDING SEPT. 30TH, 1856-7-8-9 AND '60.

	1856.	1857.	1858.	1859.	1860
Richmond	36,696	30,534	44,616	41,797	46,633
Petersburg	15,677	12,927	15,154	16,079	17,530
Lynchburg	8,652	5,754	8,788	7,621	9,301
Clarksville	2,136	1,612	1,750	2,263	2,026
Farmville	2,108	2,035	2,412	1,193	1,460
Total hhds	65,300	52,907	72,720	68,953	76,950

LOOSE TOBACCO.

Although a large quantity of the tobacco brought to market in crates, boxes, or in bulk, (termed "loose,") is prized in hhds., re-inspected, and thus re-sold,

by far the largest portion is purchased and used by the manufacturers. Estimating 1,400 lbs. to the hhd. we have the following comparative recapitulation of weights, and their equivalents in hhds. :—

	Pounds.		Hhds.	
	1858–9.	1859–60.	1858–9.	1859–60.
Lynchburg	10,954,264	13,221,358	7,824	9,443
Richmond	4,413,664	5,995,924	3,152	4,282
Petersburg	3,992,386	4,654,445	2,852	3,324
Farmville	3,000,000	2,650,000	3,144	1,893
Totals	22,360,314	26,521,727	15,971	18,942

Increase in pounds, 4,161,413; in hhds., 2,971.

EXPORTS.

Foreign.—The following is a carefully prepared comparative statement of the exports of leaf tobacco from Richmond, direct to foreign ports, during the past five seasons. The shipments in September last were 952 hhds. to London, 770 to Bordeaux, 636 hhds. to Venice, 443 hhds. to Genoa, 361 hhds. to Leith, and 136 hhds. to Bremen. Total, 3,298 hogsheads.

	1859–60.	1858–9.	1857–8.	1856–7.	1855–6.
Antwerp	....	...	1,847	....	....
Bordeaux	1,756	931	1,145	1,556	511
Bremen	2,475	1,942	4,685	3,360	4,218
Bristol	411	656	937	358	487
Dublin	520	....	521	....	....
Genoa	2,893	458	240	700	466
Gibraltar	....	765	....	....	....
Glasgow	....	352	....	....	....
Havre	2,166	5,811	2,785	2,162	1,852
Leith	361	....	....	....	304
Liverpool	2,389	3,754	5,832	4,253	3,963
London	2,461	2,543	1,901	1,722	2,117
Marseilles	690	835	693	550	750
Porto Rico	....	....	....	6	2
Rotterdam	1,131	255	581	....	822
Venice	1,101	472	5,962	5,296	3,266
Total hhds.	18,354	18,774	27,129	20,143	18,758

Decrease of shipments to France, last season, 2,965 hhds.; to Great Britain and Ireland, 1,163; to other ports, 765. Increase of shipments to Sardinia, 2,435 hhds.; to Germany, 1,409; to Austrian Italy, 629. Net decrease, 420.

The value of the tobacco and stems exported from Richmond, for the past four years, is recorded at the custom-house, as follows :—

Quarter ending—	1856–7.	1857–8.	1858–9.	1859–60.
December 31st	$803,358	$553,694	$533,071	$762,632
March 31st	279,537	68,182	53,917	193,714
June 30th	764,682	812,943	576,999	171,742
September 30th	2,649,305	2,913,511	1,900,498	1,553,401
Total	$4,496,882	$4,348,600	$3,064,480	$2,681,489

Coastwise.—The exports of leaf tobacco and stems, by steamers, for three years past, have been as follows :—

	To New York.		Philadelphia.		Baltimore.		Total.	
	Leaf.	Stem.	Leaf.	Stem.	Leaf.	Stem.	Leaf.	Stem.
1859–60.....hhds.	1,645	..	32	5	2,539	2,937	4,216	2,942
1858–59.....	1,172	60	44	18	1,006	4,208	2,222	4,286
1857–58.....	2,215	7	115	30	2,192	1,952	4,522	1,995

In the registration of exports, by packets, from the dock, there is no discrimination between leaf and stems. The combined shipments during the past year were 4,660 hhds., against 2,417 the previous season, and 2,202 in 1857–8.

RECAPITULATION.	1858–9.	1859–60.
Exports from dock.... .....hhds.	2,417	4,660
Deduct stems, (assumed).....	700	1,200
	1,717	3,460
Exports of leaf, by steamers.....	2,222	4,216
Total coastwise exports of leaf.....	3,939	7,676
" foreign " "	18,774	18,354
Aggregate exports of leaf.....	22,713	26,030
Receipt of leaf in hogsheads.....	47,444	53,498
Stocks 1st October, 1858 and 1859.....	7,900	9,711
	53,344	63,209
Deduct exports.....	22,713	26,030
	32,631	37,179
Stocks 1st October, 1859 and 1860	9,711	17,321
Used by manufacturers, etc.....	22,920	19,858

In estimating the quantity of tobacco used by manufacturers, the amount of "loose" sold in this market, the greater portion of which is purchased by them, is to be taken into consideration.

STOCKS.

We have the following proximate indication of the proportion of stocks at the present time, and corresponding period of '58 and '59 :—

	1858.	1859.	1860.
Virginia, 1st October.....	10,800	13,810	25,431
New York, 1st September.....	11,595	12,412	14,913
Baltimore, 1st September.....	20,959	20,641	25,311
New Orleans, 1st September.....	28,418	23,369	26,486
In United States.....	71,752	70,233	92,031
London and Liverpool, 1st September.....	20,684	28,235	35,939
Continental ports, 1st September.....	6,561	17,337	15,567
Total hhds.....	98,997	115,805	143,537

Increase over 1859, 27,732 hhds.

MANUFACTURED TOBACCO.

We annex our annual statistics of the business in manufactured tobacco.

Receipts.—The receipts at Richmond during the past four seasons from the factories of Lynchburg, Danville, etc., were as follows :—

1856–7.....pkgs	125,604	1858–9.....pkgs	154,896
1857–8.....	119,290	1859–60.....	159,035

Exports.—The exports, by steamers, during the past three seasons, were as follows :—

	To New York.	Philadelphia.	Baltimore.	Total.
1857–8.....pkgs	108,352	36,217	86,393	230,962
1858–9.....	149,945	41,435	123,761	315,141
1859–60.....	114,041	34,366	126,868	275,275

The exports from the dock last season were 60,820 pkgs.; in 1858–9, 59,858

pkgs.; and in 1857-8, 49,493 pkgs. The business of the year just closed compares with that of the previous season, as follows:—

	1858–59.	1859–60.
Total export from dock.....pkgs.	59,858	60,820
" " by steamers.....	315,141	275,275
Aggregate coastwise exports.....	374,999	336,095
Receipts by railroads and canal.....	154,896	159,035
Product of city factories, exported.....	220,108	175,060

PRODUCTION AND CONSUMPTION OF COTTON.

The circular of Mr. GRIBBLE, cotton factor, New Orleans, gives the following table exhibiting the general production and consumption for twenty years, divided into periods of four years, together with the annual average of those periods and the annual percentage of increase, both in supply and demand, from one period to the other. It will be seen that the ratio of increase during the past four years has considerably fallen off, both in production and consumption, but especially in the latter:—

PRODUCT.

	1857–60.	1853–56.	1849–52.	1845–48.	1841–44.
United States.....	14,580,000	12,570,000	10,200,000	8,620,000	7,730,000
Other countries.....	3,596,000	3,140,000	2,700,000	1,560,000	1,600,000
Aggregate.....	18,176,000	15,710,000	12,900,000	10,180,000	9,300,000
Annual average.....	4,544,000	3,927,500	3,225,000	2,545,000	2,332,500
Annual percentage of increase in U. S. over previous 4 years..	4	6	5	3	
An. percentage of increase from all sources over prev's 4 years	4	5½	6½	3	

CONSUMPTION.

Great Britain.....	8,880,000	8,190,000	6,660,000	5,760,000	5,130,000
Continent of Europe...	5,320,000	4,880,000	4,110,000	2,870,000	2,450,000
United States.....	2,710,000	2,530,000	2,010,000	1,770,000	1,240,000
Aggregate.....	16,910,000	15,600,000	12,780,000	10,400,000	8,820,000
Annual average.....	4,227,500	3,900,000	3,195,000	2,600,000	2,205,000
An. percentage of increase in G. B. over previous 4 years.....	2½	5½	4	3	
An. percentage of increase in Continent in previous 4 years	4½	4½	10½	4½	
An. percentage of increase in U. S. over previous 4 years.....	2	6½	3½	10½	
An. percentage of increase in all countries.....	2½	5½	5½	4½	

TEXAS COTTON.

The annual statement of the receipts of cotton at the Texas Gulf ports for twelve years is as follows. It was made up by Messrs. B. B. BAKER and E. S. BOLLING, of Galveston:—

	Bales.		Bales.		Bales.
1849.....	68,827	1853.....	85,790	1857.....	80,802
1850.....	31,405	1854.....	110,325	1858.....	145,286
1851.....	45,900	1855.....	80,737	1859.....	192,062
1852.....	62,433	1856.....	116,078	1860.....	252,424

COTTON CROP.

DATES OF FIRST BLOOM OF COTTON, KILLING FROSTS, TOTAL CROPS OF THE UNITED STATES, AND THEIR TOTAL VALUE AT THE AVERAGE PRICE AT MOBILE IN THE FOLLOWING YEARS.

Years.	1st Bloom.	Killing frost.	Total crop.	Total value.
1859-60	May 31	October 30	4,669,770	$308,865,280
1858-59	May 25	November 7	3,851,481	231,196,701
1857-58	June 17	November 19	3,113,962	178,959,396
1856-57	June 24	October 8	2,939,519	188,570,143
1855-56	June 14	October 24	3,527,845	150,109,804
1854-55	June 24	November 14	2,847,339	121,786,383
1853-54	June 15	October 25	2,930,027	126,723,667
1852-53	June 17	November 27	3,262,882	150,862,612
1851-52	June 12	November 6	3,015,029	135,676,305
1850-51	June 22	November 17	2,355,257	133,263,738
1849-50	June 7	November 26	2,096,706	117,649,947

GUANO EXPORT FROM THE CHINCHA ISLANDS.

The guano export from the Chincha Islands from from 1st of January to June, amounts to 80,594 tons, in 108 vessels :—

	Ships.	Tons.		Ships.	Tons.
England	56	49,892	Spain	2	1,033
United States	64	22,667	Reunion	2	761
France	11	6,512	Australia	1	848
Mauritius	6	2,412			
Havana	3	1,212	Total	108	80,694
Martinique	3	1,758			

The net export from Peru from 1st January, 1856, to 31st December, 1850, is valued at $49,621,295.

COMMERCE OF THE PORT OF BOSTON AND CHARLESTOWN.

Annexed is a monthly statement of the value of imports and exports of goods, wares, and merchandise entered during the month of September, 1860 :—

IMPORTS.

Dutiable, entered for consumption	$1,497,424
Dutiable, warehoused	830,005
Free, (exclusive of specie and bullion)	917,213
Total imports	$3,244,642

EXPORTS.

Domestic merchandise	$1,057,760
Foreign merchandise, dutiable	69,210
" " free	40,580
Specie and bullion	67,240
Total exports	$1,234,790
Mdse. withdrawn from warehouse for consumption	724,474

ENTRY AND DELIVERY OF ARTICLES BELONGING TO FOREIGN MINISTERS.

In addition to the instructions contained in Articles 247 of General Regulations of February 1, 1857, regulating the "entry and delivery of articles belonging to foreign ministers," collectors are instructed that, whenever packages, cases, boxes, &c., may arrive at their ports addressed to any foreign minister or charge d'affaires accredited to the government of the United States, they will abstain from opening the same, or disturbing the contents, but are enjoined to take careful charge thereof, and will advise the Department of State upon the subject, and await instructions from this Department before entry and delivery of said articles.

COMMERCIAL REGULATIONS.

TREATY WITH CHILE.

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA—A PROCLAMATION.

Whereas a Convention providing for the reference to an arbiter of the questions relative to a sum of money, the proceeds of the cargo of the brig Macedonian, between the United States of America and the Republic of Chile, was concluded and signed by their respective plenipotentiaries at Santiago on the the tenth day of November, one thousand eight hundred and fifty-eight; which convention, being in the English and Spanish languages, (the English only being here copied,) is word for word as follows:—

CONVENTION BETWEEN THE UNITED STATES OF AMERICA AND THE REPUBLIC OF CHILE.

The Government of the United States of America and the Government of the Republic of Chile desiring to settle amicably the claim made by the former upon the latter for certain citizens of the United States of America who claim to be the rightful owners of the silver in coin and in bars forcibly taken from the possession of Captain ELIPHALET SMITH, a citizen of the United States of America, in the valley of Sitana, in the territory of the former Vice Royalty of Peru, in the year 1821, by order of Lord COCHRANE, at the time Vice Admiral of the Chilean squadron, have agreed, the former to name JOHN BIGLER, Envoy Extraordinary and Minister Plenipotentiary of the United States of America, and the latter Don GERONIMO URMENETA, Minister of State in the Department of the Interior and of Foreign Relations, in the name and in behalf of their respective governments, to examine said claim, and to agree upon terms of arrangement just and honorable to both governments.

The aforesaid plenipotentiaries, after having exchanged their full powers, and found them in due and good form, sincerely desiring to preserve intact and strengthen the friendly relations which happily exist between their respective governments, and to remove all cause of difference which might weaken or change them, have agreed, in the name of the government which each represents, to submit to the arbitration of His Majesty the king of Belgium the pending question between them respecting the legality or illegality of the above referred to capture of silver in coin and in bars, made on the ninth day of May, 1821, by order of Lord COCHRANE, Vice Admiral of the Chilean squadron, in the valley of Sitana, in the territory of the former Vice Royalty of Peru, the proceeds of sales of merchandise imported into that country in the brig Macedonian, belonging to the merchant marine of the United States of America.

Therefore, the above-named ministers agree to name His Majesty the king of Belgium as arbiter, to decide with full powers and proceeding *ex æquo et bono*, on the following points:—

1st. Is, or is not, the claim which the government of the United States of America makes upon that of Chile, on account of the capture of the silver mentioned in the preamble of the Convention, just in whole or in part?

2d. If it be just in whole or in part, what amount is the government of Chile to allow and pay to the government of the United States of America as indemnity for the capture?

3d. Is the government of Chile, in addition to the capital, to allow interest thereon, and, if so, at what rate, and from what date is interest to be paid?

The contracting parties further agree that His Majesty the king of Belgium shall decide the foregoing questions upon the correspondence which has passed between the representatives of the two governments at Washington and at Santiago, and the documents and other proofs produced during the controversy on the subject of this capture, and upon a memorial or argument thereon to be presented by each.

Each party to furnish the arbiter with a copy of the correspondence and documents above referred to, or so much thereof as it desires to present, as well as with its said memorial, within one year at furthest from the date at which they may respectively be notified of the acceptance of the arbiter.

Each party to furnish the other with a list of the papers to be presented by it to the arbiter three months in advance of such presentation.

And if either party fail to present a copy of such papers, or its memorial, to the arbiter within the year aforesaid, the arbiter may make his decision upon what shall have been submitted to him within that time.

The contracting parties further agree that the exception of prescription, raised in the course of the controversy, and which has been a subject of discussion between their respective governments, shall not be considered by the arbiter in his decision, since they agree to withdraw it and exclude it from the present question.

Each of the governments represented by the contracting parties is authorized to ask and obtain the acceptance of the arbiter, and both promise and bind themselves in the most solemn manner to acquiesce in and comply with his decision, nor at any time thereafter to raise any question directly or indirectly connected with the subject matter of this arbitration.

This convention to be ratified by the governments of the respective contracting parties, and the ratifications to be exchanged within twelve months from this date, or sooner, if possible, in the city of Santiago.

In testimony whereof, the contracting parties have signed and sealed this agreement in duplicate, in the English and Spanish languages, in Santiago, the tenth day of the month of November, in the year of our Lord one thousand eight hundred and fifty-eight.

JOHN BIGLER, [L. S.]
Envoy Extraordinary and Minister Plenipotentiary of the United States of America.
GERONIMO URMENETA, [L. S.]
Plenipotenciario ad hoc.

And whereas the said convention has been duly ratified on both parts, and the respective ratifications of the same were exchanged at Santiago, on the 15th of October last, by JOHN BIGLER, Envoy Extraordinary and Minister Plenipotentiary of the United States, and GERONIMO URMENETA, Minister of Foreign Relations to Chile, on the part of their respective governments:

Now, therefore, be it known that I, JAMES BUCHANAN, President of the United States of America, have caused the said convention to be made public, to the end that the same, and every clause and article thereof, may be observed and fulfilled with good faith by the United States and the citizens thereof.

In witness whereof I have hereunto set my hand and caused the seal of the United States to be affixed. Done at the city of Washington, [L. S.] the twenty second day of December, in the year of our Lord one thousand eight hundred and fifty-nine, and of the Independence of the United States of America the eighty-fourth.

JAMES BUCHANAN.

By the President:
LEWIS CASS, Secretary of State.

CITRON.

TREASURY DEPARTMENT, September 26, 1860.

SIR:—I acknowledge the receipt of your report, under date of the 29th ultimo, on the appeal of Messrs. MULLER & KRUGER from your decision assessing duty at the rate of 30 per cent under the classification in schedule B of the tariff of 1857, of "comfits, sweetmeats, or fruit preserved in sugar, brandy, or molasses," on citron imported by them. The appellants claim entry of the article in question at the rate of 24 per cent under schedule C. It is understood that the merchandise in this case is the rind or skin of the fruit known as "citron" preserved in sugar, and if such be the fact, it falls, in the opinion of the Department, within the classification in schedule B to which you referred it on the entry, and the duty of 30 per cent imposed by the law on articles enumerated in that schedule was rightfully exacted. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, &c., New York.

SADDLERY—POLISHED BITS.

TREASURY DEPARTMENT, September 18, 1860.

SIR :—I acknowledge the receipt of your report, under date of the 30th ultimo, on the appeal of Messrs. A. R. VAN NEST & Co. from your decision on polished bits imported by them. The bits in question are manufactured of maleable or soft iron and polished. The importers claim entry at a duty of 15 per cent under the classification in schedule E of "saddlery, common, tinned, or japanned." You exacted duty at the rate of 24 per cent under the classification in schedule C of "saddlery of all kinds, not otherwise provided for." The articles would appear, from an examination of the samples submitted, not to be "tinned or japanned," and that they do not come within the designation of "common saddlery," as used in the trade, would appear from the testimony of official experts, to whom the samples have been submitted. Your decision assessing the duty in this case at 24 per cent under the classification of "saddlery of all kinds, not otherwise provided for" in schedule C, is affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, &c., New York.

NAUTICAL INTELLIGENCE.

NEW LIGHTHOUSES ON THE WEST COAST OF SCOTLAND.

The Commissioners of Northern Lighthouses hereby give notice, that on the night of Tuesday, the 20th day of November next, and every night thereafter, from the going away of daylight in the evening to the return of daylight in the morning, lights will be exhibited from the undermentioned lighthouses, the positions and characteristics of which have been specified by Messrs. DAVID and THOMAS STEVENSON, the engineers to the board, as follows :—

I. CORRAN (LOCH EIL.)

Corran Lighthouse, in Argyleshire, is erected on the point of the same name, which forms "The Narrows," at the entrance to Loch Eil.

The light will be Azimuthal condensing light, and will show a fixed light, which will be red, from about NE. by E. ½ E. by the east and south to about SW. by W., and white in every other direction where it can be seen from Loch Eil and Loch Linnhe.

The light will be about 36 feet above high water spring tides, and will be seen in clear weather at a distance of about ten nautical miles, allowing 10 feet for the height of the eye, and at lesser distances according to the state of the atmosphere. The lighthouse tower, which is of masonry and painted white, is 42 feet in height from base to vane.

The bearings given above are compass bearings *from* the lighthouse.

II. PHLADDA (NEAR EASDALE.)

Phladda Lighthouse, also in Argyleshire, is erected on a small island of the same name about a mile to the westward of Luing Island, and about 2½ miles SW. from the Island of Easdale.

The light will be an Azimuthal condensing light, and will show a fixed light, which will be red towards the Bogha Nuadh Rock for about a point and a half, or from about N. by E. ¼ E. to about NNE. ½ E., and white from about NNE. ½ E. by the east and south to about SSW. ¼ W.; and from about SSW. ¼ W. round by the west and north to N. by E. ¼ E. the light will be masked. But the mariner must notice, that for some distance to the westward of SSW. ¼ W. the light will show faintly, varying with the state of the atmosphere.

The light will be about 42 feet above high water spring tides, and will be seen in clear weather at a distance of about eleven nautical miles, allowing 10 feet for the height of the eye, and at lesser distances according to the state of

the atmosphere. The lighthouse tower, which is of masonry and painted white, is 42 feet in height from base to vane.

The bearings given above are compass bearings *from* the lighthouse.

And the said commissioners hereby further give notice that under a warrant of Her Majesty in council, dated the 10th day of May, 1860, the following tolls will become leviable, in respect of each of said lights, on and after the said 20th day of November next, viz. :—For every British vessel, and for every foreign vessel privileged to enter the ports of the United Kingdom, upon paying the same duties as are payable by British vessel, which may pass or derive benefit from each of the said lights, the toll of eight-sixteenths of a penny per ton of the burthen of every such vessel, for every time of passing or deriving benefit therefrom, if on an oversea voyage, and one-sixteenth of a penny per ton for each time of passing or deriving benefit therefrom, if on a coasting voyage, and for every foreign vessel not privileged in manner before mentioned, double the amount of the respective tolls before specified, according to the voyage on which she may be employed. And the said tolls in respect of each of the said lighthouses, are to be levied by the Commissioners of Northern Lighthouses, subject to the gross abatement or discount of fifty per cent on vessels engaged in oversea voyages, and of thirty-five per cent on vessels engaged in coasting voyages, mentioned in an order in council, dated the 2d day of February, 1859, and subject also to the regulations and exemptions contained in the consolidated tables of light duties sanctioned by order in council, dated the 26th day of June, 1855, and to the further exemption sanctioned by an order in council, dated 12th April, 1859. By order of the Board,

EDINBURGH, 22d October, 1860. ALEX. CUNINGHAM, Secretary.

IRELAND—EAST COAST.

ALTERATION OF LIGHTS ON BLACKWATER BANK.

The Port of Dublin Corporation has given notice, that on and after the 1st day of July, 1860, the two lights (the one revolving and the other fixed) at present exhibited from the light-vessel moored off the northeast part of the Blackwater Bank, east coast of Ireland, will be discontinued, and thenceforth a fixed white light will be exhibited from the vessel's mainmast. The light will be elevated 33 feet above the level of the sea, and in clear weather should be seen from a distance of about 9 miles. The vessel will carry a black ball at her mainmast head.

ALTERATION OF LIGHT ON ARKLOW BANK.

Also, that at the same date, the fixed white light at present exhibited from the light-vessel moored off the south end of the Arklow Bank will be discontinued, and thenceforth a revolving white light, which will attain its greatest brilliancy once in every minute, will be exhibited from the vessel's mainmast. The light will be elevated 39 feet above the level of the sea, and in clear weather should be seen from a distance of about 10 miles. This vessel will also carry a black ball at her mainmast head.

ALTERATION OF THE HEIGHT OF LIGHTS ON KISH BANK.

Also, that on and after the 1st day of July, 1860, the lights at present shown from the fore and mizen masts of the light-vessel moored off the north point of the Kish Bank, at the respective heights of 26 and 25 feet above the level of the sea, will be lowered 6 and 5 feet, or each to the height of 20 feet above that level. The light exhibited from the mainmast will remain as at present at a height of 36 feet above the level of the sea, or 16 feet above the level of the two other lights. This vessel will carry a black ball at each mast-head. This alteration is deemed desirable, it having been represented that the lights now exhibited are, when seen in one, liable to be mistaken for a single light. By order,

R. SEMMES, Secretary.

WASHINGTON, April 30, 1860.

FIXED LIGHT AT RIO GRANDE DO NORTE, BRAZIL.

The Secretary of State for the Marine Department at Rio de Janeiro has given notice, that the light exhibited from the light-tower on the fortress of Santos Reis Magos at the bar of Rio Grande do Norte, has been improved. The light is a fixed white light, elevated about 43 feet above the level of the sea, and in clear weather should be seen from a distance of 12 miles. The light-tower is cylindrical, and is built on the platform of the above fortress. Its position is given as latitude 5° 45′ S., longitude 35° 13′ 15″ west of Greenwich. By command of their Lordships,

JOHN WASHINGTON, Hydrographer.

London, October 8, 1860.

JOURNAL OF INSURANCE.

FIRE INSURANCE IN NEW YORK.

TO PROVIDE FOR INQUESTS IN CASE OF SUSPECTED INCENDIARISM.

Section 1. Whenever any building or other property in the State shall be destroyed by fire, and within ninety days thereafter a complaint shall be subscribed and sworn to by the mayor of the city or the municipal officers of the town in which the fire occurred, before any justice of the peace, for the county where such fire shall have occurred, or in any city or town where there is a municipal or police court, before such court, alleging that reasonable grounds exist for believing that such fire was not accidental in its origin, but was caused by design, it shall be the duty of such justice, and of the judge of such court, forthwith to issue his warrant to some constable of the town or city where such property was destroyed, requiring him to summon immediately, six good and lawful men of the county, to appear before such judge or justice, at the time and place expressed in the warrant, to inquire when, how, and by what means said fire originated. And in case of the non-appearance of any person so summoned, the constable shall, by the order of said judge or justices, return some person from the bystanders to complete said number.

Sec. 2. When the persons thus summoned appear, or the number be made complete, the said judge or justice shall call over their names, and then in view of the land on which such property is destroyed, he shall administer the following oath:—You solemnly swear that you will diligently inquire and true presentment make, in behalf of this State, when, how, and by what means, the fire which has here occurred was caused; and that you will return a true inquest according to your best knowledge, and such evidence as shall be laid before you.

Sec. 3. The judge or justice shall issue subpœnas for witnesses, returnable forthwith, at such time and place as he shall therein direct. Such witnesses shall be allowed the same fees, and their attendance shall be enforced in the same manner as if they had been served with a subpœna in behalf the State, to any court before a justice of the peace or a judge of a municipal or police court.

Sec. 4. The witnesses appearing hereunder shall be sworn to the effect, that the evidence which they shall give to this inquest of what they may know concerning the origin of the fire, of which inquiry is to be made, shall be the truth, the whole truth, and nothing but the truth.

Sec. 5. The testimony of all witnesses examined before any inquest shall be reduced to writing by said presiding judge or justice, or some person by his direction, and subscribed by the witness.

Sec. 7. The jury, after hearing the testimony of the witnesses, and making all needful inquiries, shall draw up and deliver to such judge or justice their inquisition under their hands, in which they shall find and certify, when, how, and by what means such fire was caused. Said inquisition and testimony, thus

subscribed, shall be filed by said judge or justice with the clerk of the courts of said county within one week thereafter.

SEC. 7. The fees of said judge or justice, and the expense of said inquisition, shall in amount and manner of payment be the same as now provided by law for coroners' inquests, and the county commissioners in appropriating the county tax, shall add to the sum apportioned to the town where such fire occurred the amount paid by the county for the inquest, and the same shall be paid by such city or town, and the same remedies for collecting the same as is by law provided for the collection of county taxes.

Approved March 9, 1860.

MARINE LOSSES FOR 1860.

The following table represents the marine losses for the month of October, 1860; to which we add a comparative view of the losses for each month of 1859 and 1860. The aggregate losses of ten months this year were $5,000,000 less than in the corresponding months of 1859.

The heaviest losses of the month of October, 1860, were those of the Black Hawk, (Calcutta trade,) Souter Johnny, (Mediterranean trade,) Cerro Gordo, with cotton, bound to Cork; the British ship Shepherdess, loaded with rice and the unfortunate Galway steamer Connaught:—

RECAPITULATION OF LOSSES IN OCTOBER, 1860.

	Vessel and freight.	Cargoes.	Total.
5 Steamers	$750,000	$150,000	$900,000
24 Ships	656,000	737,000	1,393,000
26 Barks	199,000	113,000	312,000
21 Brigs	71,300	35,000	106,600
29 Schooners	72,400	28,000	100,000
105 Total	$1,749,000	$1,063,000	$2,812,000

RECAPITULATION OF LOSSES SINCE JANUARY, 1859.

January	$1,362,700	$1,419,400	$2,782,100
February	1,230,600	1,246,700	2,477,300
March	699,400	1,159,000	1,858,400
April	642,400	599,560	1,241,960
May	1,165,300	1,393,900	2,559,200
June	1,413,400	1,042,500	2,455,900
July	1,975,100	2,252,600	4,227,700
August	2,170,150	1,044,150	3,214,300
September	1,023,400	1,242,900	2,266,300
October	1,791,700	2,059,600	3,851,300
November	3,203,100	5,368,160	8,671,260
December	1,228,900	749,950	1,973,850
Total, 1859	$17,901,150	$19,578,420	$37,479,570
January, 1860	$1,223,900	$749,950	$1,973,850
February	1,295,000	1,114,000	2,409,000
March	1,537,450	1,894,500	3,431,950
April	783,100	1,480,700	2,263,800
May	946,300	1,243,500	2,189,800
June	613,300	859,000	1,472,300
July	749,200	1,662,000	2,411,200
August	493,900	462,400	956,300
September	976,600	959,600	1,936,200
October	1,749,000	1,063,000	2,812,000
Total 10 months 1860	$10,367,750	$11,488,650	$21,856,400
Ten months 1859	13,474,150	13,460,310	26,934,460

LIFE ASSURANCE IN JAMAICA.

The following is an extract from the last annual report of the Jamaica Mutual Life Insurance Society:—

The first investigation, extending over a period of eight years, took place on the 5th January, 1852, when a surplus of £8.312 6s. 2d. was divided among the different members of the society, after reserving the value of existing engagements, and an ample guaranty fund. The second, for three years, was made the 5th January, 1855, when another bonus of £3,677 6s. 1d. was paid; and the third, for three years, was made the 5th January, 1858, when another bonus of £4,865 17s. 2d. was paid.

The following are extracts from the company's tables of rate, per £100, which, from the nature of the climate, are considerably higher than the English rates:—

Age.	1 year.	3 years.	5 years.	7 years.
20 to 34.....	£2 15 0	£2 16 0	£2 16 11	£2 18 3
35.....	2 16 0	2 16 10	2 18 0	2 19 8
36.....	2 16 10	2 17 10	2 19 5	3 1 1
37.....	2 17 8	2 19 11	3 0 11	3 2 0
38.....	2 19 0	3 0 11	3 2 7	3 4 0
39.....	3 0 8	3 2 8	3 4 5	3 6 0
40.....	3 3 0	3 4 5	3 6 1	3 7 0
41.....	3 4 4	3 6 2	3 7 8	3 9 0
42.....	3 5 11	3 7 9	3 9 3	3 10 0
43.....	3 8 2	3 9 5	3 10 9	3 12 0
44.....	3 9 2	3 10 8	3 12 4	3 14 0

Age.	Semi-annual.	Age.	Semi-annual
20.....	£1 15 6	45.....	£3 2 11
25.....	1 18 0	50.....	3 12 0
30.....	2 2 1	55.....	4 0 0
35.....	2 8 10	60.....	4 8 8
40.....	2 13 11	65.....	4 14 8

MAINE INSURANCE LAWS.

AN ACT FURTHER REGULATING INSURANCE.

SECTION. 1. A married woman may insure her property in a mutual insurance company, and give her deposit or premium note to said company with or without her husband joining therein, and said note shall have the same validity against her as if she were unmarried.

SEC. 2. Whenever a husband or wife owning a dwelling house shall effect insurance thereon, and on the household furniture therein, the assured shall be held to have an insurable interest in all of said furniture, although partly the property of the husband, and partly of the wife; and such insurance shall be valid.

SEC. 3. When any inhabitant of this State shall effect insurance in a life, fire, or marine insurance company, existing or doing business in this State, and shall give a deposit or premium note to said company, the policy and note shall be deemed to constitute one contract, and any note so given, though transferred or indorsed to a third party, shall be subject, in offset, to all the equitable claims of the maker upon the said company. When any company so insuring shall, during the term of said insurance, become insolvent, the assured shall not be liable on said note for more than the equitable proportion thereof for such part of the term of insurance as said company continued to be solvent; and if the insolvency occurs within sixty days of the date of said note, the said note shall be void, except for any amount for which the maker may have a claim on said company.

Approved March 19, 1860.

POSTAL DEPARTMENT.

POSTAGE TO BRAZIL BY THE FRENCH MAIL.

We are requested to state, says the *Constitution*, that the French government has recently concluded a postal convention with Brazil, by the terms of which letters may hereafter be transmitted between United States and Brazil, via France, in the French mail, at a postage charge of 33 cents, the single rate of one-fourth ounce or under, which embraces the full postage, (United States, French, and Brazilian,) chargeable to destination, and may be prepaid or left unpaid, in either country, at the option of the sender. Closed mails for Brazil will be regularly dispatched by the French Post-office, alternately, by the French mail packets leaving Bordeaux on the 24th of each month, and by the British mail packets leaving Southampton on the 9th of each month.

NEW POSTAGE ARRANGEMENT.

The following circular has been issued by a mercantile firm at Barbadoes:—

BARBADOES, August 1, 1860.

We observe by virtue of a public notice from the General Post-office, that the conveyance of the mails to Nassau and Havana, from these Islands, for the United States, will be discontinued during the summer months. As our letters sent by mail from this place to the States so frequently go astray, we have determined to forward all our letters for the future by the various sailing craft leaving our port for America—thus avoiding all the disagreableness connected with the present Post-office system. Our American friends will do well to write by sail-vessels, instead of the steamers, via Havana, as we are aware of many letters having been posted to us that have never come to hand.

CLOSING OF THE POST-OFFICE MAILS.

North—Albany, Buffalo, and Canadas	5 A. M. and 3½ P. M.
Nort and West Way Mail	5 A. M.
Western Mail via Erie Railroad	5 A. M. and 3½ P. M.
South and Southwestern Mail	5 A. M. and 4½ P. M.
East for Boston, by railroad	5 A. M. and 2 P. M.
East for Boston, by steamboat	4 P. M.
On Sunday, all mails close at	1½ P. M.

On the day after the arrival of each alternate Cunard packet at this port, being once a month, the steamer Karnak will be dispatched with mails for the Bahama Islands, to be landed at Nassau, N. P.

The Steamers' Mails for California and the Pacific Coast close here at 10 A. M. on the 1st, 11th, 21st, of each month—or if these dates be Sunday, the day following.

The Overland Mail for California leaves St. Louis every Monday and Thursday, at 8 A. M. Letters designed for it should be marked "Overland, via St. Louis."

The Overland Mail from St. Josephs (Mo.) to Placerville, via Salt Lake City, leaves St. Joseph every Saturday, at 8 A. M. Letters should be marked "Overland, via St Joseph."

N. B. The Overland Mail takes no newspapers for California.

Letters for the Mail Steamers to Europe are received at the wharf until *ten minutes* before the hour of sailing, by clerks of the New York Post-office.

The mails for Europe will be forward via Southampton and Havre to day, closing at 10.30 A. M., by the Vanderbilt, which sails hence for those ports at noon.

TIME OF CLOSING AT LONDON.

BOMBAY—The Overland Mail to Bombay closes in London as follows:—Via Marseilles, on the 3d and 18th of each month; via Southampton, on the 12th and 27th.

CALCUTTA—Via Marseilles, 3d, 10th, 18th, 26th; via Southampton, 4th, 12th, 20th, and 27th.

CHINA, &c.—Via Marseilles, on the 10th and 26th; via Southampton 4th and 20th.

AUSTRALIA—Via Marseilles and Suez on the 26th; via Southampton and Suez, 20th.

MAURITIUS—Via Aden on the 4th and 27th of the month.

BRAZIL—Via Southampton on the 9th of the month.

The Marseilles mails are dispatched on the eve of the above dates. Should any of these dates fall on Sunday, the mail is dispatched the following evening.

The Southampton mails are dispatched on the morning of above dates. Should any of these dates fall on Sunday, the mail is dispatched the morning previous.

STAMPS AND ENVELOPS.

During the quarter ending Sept. 30, the following stamps were issued to postmasters by the Post-office department:—

12,756,000 at	1 cent, making	$127,561	11,960 at 90 cents, making		10,746
36,512,700 at	3 "	1,097,381			
146,920 at	5 "	7,346	51,003,400		$1,451,398
922,150 at	10 "	92,215	44,592,295 qr. end'g Sept. 30,'59		1,221,490
384,800 at	12 "	46,176			
170,000 at	24 "	40,800	6,416,195 increase.....		$220,894
103,860 at	30 "	31,160			

Stamped envelops, 189,250 note size; 5,777,950 letter; 27,730 ten cent size; 10,250 official; 26,450 note size self-ruling; 668,759 letter size self-ruling; total, 6,702,400, amounting to $215,635 69. This shows an increase of 672,100 envelops, and an increase of $20,155 15 in money over the quarter ending September 30, 1859.

NEWSPAPER ENTERPRISE.

A Long Island paper remarks:—The general agent of the New York Associated Press was in our village a few days since, for the purpose of locating some carrier pigeons which the association are about to employ for the purpose of intercepting in-bound European steamers off Fire Island. The same parties have, for many years past, employed pigeons at Halifax, N. S., and at Sandy Hook, where they have proved of great services, and have doubtless contributed in no small degree to the association's world-wide reputation for successful enterprise in outstripping all their opponents—whether editors, news agents, or speculators—in the early reception of the European news. Prompted by their past success, the association have, we understand, decided to extend their pigeon express to every point along the seaboard from New York to Cape Race, where it is possible to have the steamers intercepted. Among the points that are thus to be covered, in addition to Halifax, Sandy Hook, and Fire Island, are, we understand, Montauk Point, Nantucket, Portland, St. Johns, N. F., and Cape Race. The breed of birds used by the association is the celebrated Antwerp carriers, which, when properly trained and used, will, we are reliably assured, fly at the rate of one mile per minute and unerringly, from the point where they are thrown up to their home.

JOURNAL OF MINING, MANUFACTURES, AND ART.

LAKE SUPERIOR IRON.

As if the Alleghanies and the Missouri Iron Mountain did not furnish raw material enough in the shape of iron ore, the United States has also the Lake Superior region, a district of untold wealth. Although five years have not elapsed since Lake Superior iron attracted any considerable attention, it already enters largely into the channels of trade, is loading fleets, building foundries, and imparting new animation throughout a large extent of country. There are in Marquette three iron companies, all of which are engaged in quarrying and shipping iron, and together employ about 450 men in the summer season. In the winter, a "stock pile" is accumulated, to insure a supply for the loading of vessels upon the opening of navigation. The ridge of ore upon which these companies are engaged can be traced for upwards of six miles, and therefore it is presumed to be continuous throughout this distance, and literally inexhaustible, even though the entire world was dependent upon it alone. The process of extracting the ore is more like quarrying than mining, as the mine is entered at a surface level, the laborers working up towards the highest elevation at which ore appears—60 or 70 feet—and throwing down the sides of the cliff thus formed by blasting. As yet, no shafts have been sunk with the object of ascertaining the depth of the vein; but the ore is universally regarded as of volcanic origin, shot up from below the primitive rocks. Should it hereafter be found advantageous to descend beneath the surface, the vein can be followed to any depth, selecting the richest parts, and leaving undisturbed the intervening mass of rock. The ore is found in a variety of conditions—sometimes as though a basin had been filed by overflowing, at others, in the form of a cone, etc., but always as if injected from beneath. The width of the vein is from twenty to two hundred feet. Thousands and thousands of tons of rich ore, such as would be seized upon with avidity in almost any country in Europe, and, by the application of cheap labor, make princely fortunes for somebody, are here thrown away because inferior to the standard required for shipping. The ore is now sold at $3 per gross ton, delivered to vessels in Marquette; lake freight is about $2 per ton; inland charges make its total cost, delivered at the furnaces in Ohio and Pennsylvania, about $6 to $7 per ton. For strength and tenacity this iron surpasses any produced by foreign mines.

The following table gives the result of numerous experiments upon tenacity of iron made by Professor W. R. Johnson and Major Wade, of the U. S. Ordinance Department:—

	Strength in lbs. per square inch.		Strength in lbs. per square inch.
Salisbury, Con., iron.....	58,009	Essex Co., N.Y., iron.....	58,912
Swedes "	58,184	English cable bolt"	59,105
Center Co., Pa. "	58,400	Russia "	76,069
Lancaster Co., Pa. "	58,661	Lake Superior "	89,582

It is also claimed to be equal to the best Scotch pig, or the celebrated Salisbury iron, for castings. There are three furnaces in blast at Marquette, producing 40 tons per day of pig metal, from charcoal, and a fourth will be in

operation this fall. Four others are projected by as many different firms, all to use charcoal, with a single exception—and as a heavy growth of timber is available for this purpose, it is believed that charcoal iron can be made and sold for twenty dollars per ton at a profit. A large expansion in this business is therefore anticipated. The shipments of each of the ore companies, (which constitute the main traffic of the port,) to furnaces at various points on the lower lakes, average 4,400 to 4,500 tons per day, or about three cargoes, and put in requisition all the tonnage that can be obtained, since the renewed activity in the grain trade. Over 100,000 tons of ore have been already shipped this season, and unless there is a large advance in freights, this amount will be increased to 150,000 before the close of navigation. Much of this ore goes along the line of the Erie and Beaver Canal, as far as Pittsburg, and down the valley of the Mahoning River, in Ohio, to the coal fields—where fuel costs no more than $1 per ton.

The railway on which the ore is transported a distance of from fourteen to seventeen miles, varying with the location of the mines, is only the northern division of the Bay De Noquet and Marquette Railroad, intended to connect Lake Superior with Lake Michigan, separated only seventy miles on the proposed route. The company has a grant of land from Congress for this purpose. When the ore comes into more general use on Lake Michigan, the road will be indispensable, besides affording an outlet available at all times in the year to the whole Lake Superior region, and abolishing the "dog train." This road employs four locomotives and 250 freight cars, running nine trains a day, and bringing down to the port an average of 1,500 tons of ore every day. As the business of this road presents, at a glimpse, the entire trade of Lake Superior, we here give the statistics for three years :—

Number of tons transported in 1858.....	33,000
Number of tons transported in 1859.....	88,000
Estimate for 1860.....	175,000

This year the road has already brought down 114,000 tons of ore. All through that part of the country where the Lake Superior ore is now used, furnaces were almost universally abandoned a few years ago, from the competition of anthracite iron from Eastern Pennsylvania, but the manufacture is successfully resumed and new furnaces are going up. A large furnace to cover several acres, will go into operation at Buffalo this fall, to use Lake Superior iron. The trade also gives employment to more than seventy-five sailing vessels, besides furnishing several cargoes for steam propellers.

JAMES RIVER (VA.) COAL TRADE.

The coal fields of Eastern Virginia occupy the area about the lower James and Appomattox Rivers. The mines of this district were perhaps the first worked within the United States. The coal is brought to market over three principal avenues, namely, the James River Canal, the Clover Hill Railroad and the Richmond and Danville Railroad. Before the construction of the latter the Chesterfield Railroad was in use but was subsequently abandoned. Several short railroads are tributary to the canal, but as their tonnage is included in the returns of that work, these need not be further noticed. The coal trade was commenced in 1822, and for several years was carried on by barges on the James

River. The Chesterfield Railroad was built in 1831–2. The James River Canal trade commenced in 1844. The Clover Hill Railroad was opened in 1846. The Springfield mines are reached by a short railroad diverging from Hungary, a point on the Richmond, Fredericksburg, and Potomac Railroad. Of these which belong to the New York and Richmond Company, we have no statistics. The quantity of coal brought to market by the principal avenues, exclusive of that brought from the Springfield mines, has been, since 1840, as follows :—

Year.	Chesterfield Railroad.	James River Canal			Clover Hill Railroad.	Richmond and Danville R. R.
		Down.	Up.	Total.		
1840.....	37,310	.....	....	.....	.....	.....
1841.....	36,488	.....	....	.....	.....	.....
1842.....	34,812	.....	....	.....	.....	.....
1843.....	28,740	.....	....	.....	.....	.....
1844.....	45,197	18,418	130	18,548	.....	.....
1845.....	51,327	36,446	204	36,650	.....	.....
1846.....	64,164	23,462	365	23,827	26,055	.....
1847.....	54,385	27,467	875	28,342	40,056	.....
1848.....	51,735	30,797	1,735	32,532	45,937	.....
1849.....	44,307	37,997	1,653	39,650	44,892	.....
1850.	38,485	35,937	3,287	39,224	33,654	.....
1851.....	25,822	27,531	2,916	30,447	43,779	19,425
1852.	.....	21,752	4,558	26,310	46,703	34,955
1853.....	.....	21,096	5,354	26,452	52,100	36,449
1854.....	.....	20,533	6,114	26,647	53,478	41,570
1855.....	.....	21,152	5,373	26,525	45,430	34,914
1856.....	.....	19,084	5,811	26,395	36,857	39,158
1857,.....	.....	28,828	7,734	36,562	44,836	24,274
1858.....	.....	23,792	6,812	30,604	49,022	29,918
1859.....	.....	25,161	7,941	33,102	44,992	30,834
Total.....	512,672	419,455	60,362	479,817	607,282	291,496
Average	42,722	26,216	3,772	29,988	43,377	32,388

—making an aggregate tonnage from the sources indicated in the 20 years ending with 1859 of 2,371,084 tons, or on the average 118,559 tons yearly.

PERFUMERY.

An interesting paper on the above subject was read before the members of the Society of Arts on the 16th May, by Eugene Rimmel, the well-known perfumer. After defining the word perfumery, and giving a sketch of its history, the lecturer continued :—

There are about forty manufacturing perfumers in London, employing from 20 to 100 hands each, according to the importance of their business. From the table of imports of essential oil and perfumery materials, it will be seen that, in 1858, the quantity of essential oils imported amounted to 290,204 pounds in weight, of a value of £168,330 ; and if we add to that the other perfumery materials not included in essential oils, such as musk, of which 10,957 ounces, worth at least £15,000, were imported, we shall find that the total amount of those imports exceeded £200,000. If we consider that those do not include spirits of wine, which are very costly in this country ; fancy soaps, of which immense quantities are made ; and many other materials, we may fairly assume that the total production of perfumery in the United Kingdom does not fall short of £1,000,000 per annum.

In Paris there are about eighty perfumers, employing together from 2,000 to 3,000 hands. The annual amount of the export trade of perfumery averages from twelve to thirteen million francs, or about £500,000. The yearly average export trade for ten years, from 1827 to 1836, was six millions of francs ; from

1837 to 1846, eight millions; from 1847 to 1856, ten millions; and that for 1858, above twelve millions; so that the trade has doubled in twenty-five years. It is difficult to estimate the amount of home consumption, but it is at least equal to that of the exports, which gives a probable total product of £1,000,000, or about the same as that of England.

The three principal towns where the manufacture of pomades and oils is carried on, are Grasse, Cannes, and Nice. From the details furnished by M. PILAR, one of the first manufacturers of Grasse, it appears that there are about one hundred houses engaged in that occupation, and in that of distilling essential oil, materials for which abound in the neighborhood. Out of that number, seventy are in Grasse, which may be called the head quarters of the trade. The following are approximate numbers and values of the flowers consumed in that locality for manufacturing purposes:—

		Value.
800,000 kilos., or	1,700,000 lbs. of orange flowers.....	£32,000
350,000 "	550,000 lbs. of rose "	10,000
50,000 "	110,000 lbs. of jasmine "	6,000
30,000 "	66,000 lbs. of violets.....	7,000
30,000 "	60,000 lbs. of cassie.....	10,000
15,000 "	33,000 lbs. of tuberose.....	3,000

The average quantities of the principal articles manufactured are:—

		Value.
300,000 kilos., or	660,000 lbs. of scented pomades and oil.....	£250,000
80,000 "	176,000 lbs. of rose water.....	5,000
500,000 "	1,100,000 lbs. of orange flower water, 1st quality....	30,000
1,000,000 "	2,200,000 lbs. " " " 2d "	50,000

This does not include the essential oils, of which the list would be too long; but some of them are very valuable, such as the Neroli, for instance, which is distilled from orange flowers, and is worth about £10 per pound.

HOW RAILROAD IRON IS MADE.

An excursionist through the coal fields of Pennsylvania communicates to the *Evening Post* a description of the process of making "pig" iron, and the rolling it for railway purposes, from which we take the following extract:—

There! they are going to let out the moulten iron! The men are crowding about the enormous fire-place built about the foot of the furnace, and through a little door we already catch a glimpse of the burning material within. With a few blows of the hammer a sliding door is removed, and the stream of molten metal gushes out, rushing slowly along the channel, sputtering up in a spray of sparks at any little obstacle, and gradually filling up the first row of sand moulds. The channel is then obstructed, so the metal enters the second row, and soon after the third, in all of which it gradually cools—this effect being hastened by the sand loosely thrown over the entire bed, as sugar is sprinkled over a waffle. In half an hour or so, the workmen turn over the "pigs," as the bars of iron thus formed in the moulds are called, with long poles, to allow them to cool. They are then cast into cars and drawn by mules to the rolling mill, a quarter of a mile distant.

The machinery connected with this casting foundry is perfectly colossal. It is enclosed in a solid brick building a few rods distant, and the engineers claim that it is the largest in the United States, except that in a similar establishment at Catasauqua, which is the same size, and was made by the same machinists in Philadelphia. The principal wheel is twenty-eight feet in diameter—about half the diameter of the paddle-wheels of the Great Eastern—and the cylinder is ten feet stroke and fifty-eight inches in diameter. There are four of these engines with their appurtenances, belonging to the establishment, though, owing to the limited demand for iron, only one of them is at present in operation. The size of this machinery is so great that there is something almost sublime in its work-

ing, as it continues night and day, with its never-tiring activity, performing its appointed task with no grating, no clanking, nothing but its mighty throbbing to suggest the power concentrated in it. All this machinery is used to produce wind, to condense the air and blow it through enormous iron pipes upon the furnaces. In fact, this colossal engine is but the motor to blow a gigantic bellows.

We have followed Mr. WISE and the professor in their researches into the manufacture of iron from the time the ore is brought from the rivers to its metamorphosis into pig iron, and its removal to the rolling mill. Arriving at this place, the iron is thrust into large furnaces of burning coal, and there melted. Two men manage each furnace, taking their turns at stirring up the molten mass with long iron poles. This is called "puddling." At the proper moment, a quantity of this fiery-hot melted iron is taken out of the furnace in the form of a ball about two feet in diameter, cast on an iron wheelbarrow, wheeled quickly to a long iron trough, through which it falls on an inclined plane to the story below. Here it is received in a mould, and assumes the shape of an oblong mass. It is passed through rollers and expanded till it looks like the long slab of an ordinary mantel-piece. It is then melted again, goes through another process of moulding and expansion, is caught up by other rollers and pulled and crushed out till it appears in the shape of a long iron pole. While passing under the last roller, its appearance is singularly beautiful, as it undulates gracefully and slowly, like a mighty serpent of flame, instead of merely a long bar of red-hot iron. At the proper moment, enormous shears clip the ends of the bars off, reducing them to a uniform length for railroad iron. This clipping process is the signal for a magnificent fountain of sparks, which shoot out in every direction, forming a pyrotechnic display of unusual splendor.

COTTON MANUFACTURES.

There have been large losses by investments in cotton manufactures. The present year offers better prospects for capital in this channel, but for some years the results have been, in many cases, disastrous. We have before us a list of forty-three New England companies, (mainly cotton,) whose shares are sold in Boston. They represent a capital of over $44,000,000. The par value of shares of nineteen of these companies is one thousand dollars. The largest capital of any one company is $3,000,000, (the Amoskeag,) three of them have over $2,000,000 each, and eighteen others have from one to two millions each. Of these forty-three companies, the shares of only eighteen are reported above par, ranging from ten per cent permium to par, while some are at thirty, forty, and fifty per cent discount.

England, with cheap labor and cheap capital, has added, in two years only, twenty-five per cent to her exports of cotton goods and yarns, viz. :—

	1857.	1858.	1859.
Cottons, calicoes, etc.....yards	1,979,000,000	2,321,000,000	2,563,000,000
Value	£28,786,000	£32,042,000	£37,040,000
Yarns and laces	8,700,000	9,579,000	9,465,000
Total value.....	£37,486,000	£41,621,000	£46,505,000

A Parliamentary report recently stated the wages of Manchester as nine shillings per week for women, 8 shillings per week for girls and women, (as scutchers in cotton mills,) ten shillings for young men and boys as spinners, and others varying from twelve to thirty shillings for men and women in the more advanced work. As wages and capital form more than three-fourths of the cost of cotton goods, it is not surprising that these low wages have contributed to the growth of England and her foreign export of cotton goods, to the extent of £230,000,000 annually.

GAS AND OIL.

The cheapness of gas, as compared with other modes of procuring artificial light, may be seen from the following table :—

It must be borne in mind that this table is made for the English market, showing, as it does, at what a low rate gas can be manufactured, and still pay fair dividends. According to this table, gas is afforded at the low sum of one dollar per thousand cubic feet in the city, and one dollar and twenty-five cents in the suburbs. Gas from cannel coal being much better than that made from ordinary coal, containing, as it does, more body, a higher rate is charged for the gas. The price received for this quality of gas is one dollar and fifty cents, or six English shillings. The machinery for the manufacturing gas in England is far superior to any in this country, and they also make a saving of nearly twenty per cent on their method of washing or purifying the gas.

This table has been computed with great care, merely altering the prices of gas to the rate as afforded at the present time :—

COMPARATIVE COST OF LIGHT, FROM CANDLES, LAMPS, AND GAS.

	Quantity and price of candles and oil.			Quantities and prices of gas for an equal light.				
		s.	d.	C. ft.	At 5s. per 1,000		At 4s. per 1,000.	
Tallow candles, (dip).....lb.	1	0	6	21	0	1¼	0	1
" " (moulds).....	1	0	8	21	0	1¼	0	1
Composition, "	1	1	0	25	0	1¼	0	1¼
Wax candles "	1	2	4	25	0	1¼	0	1¼
Solar and pale seal oil.... .....gall.	1	4	0	175	0	10½	0	8¼
Sperm oil.....	1	8	0	217	1	1	0	10½

This table shows that gas is only about one-sixth the price of tallow, or one-twentieth that of wax candles, and one-eighth that of sperm oil.

COAL—ITS MECHANICAL POWERS.

It is stated by Prof. ROGERS, that each acre of a coal seam in England, four feet in thickness, and yielding one yard net of pure fuel, is equivalent to about 5,000 tons, and possesses, therefore, a reserve of mechanical strength in its fuel equal to the life-labor of more than 1,600 men. Each square mile of one such single coal bed contains eight million tons of fuel, equivalent to one million of men laboring through twenty years of their ripe strength. Assuming, for calculation, that ten million tons out of the present annual products of the British coal mines—namely, sixty-five millions—are applied to the production of mechanical power, then England annually summons to her aid 3,300,000 fresh men, pledged to exert their fullest strength for twenty years. Her actual annual expenditure of power, then, is repesented by 66,000,000 of able-bodied laborers.

MAKING CLOTH FIRE PROOF.

A patent has lately been secured by F. A. ABEL, of the Royal Arsenal at Woolwich, England, for a new method of rendering textile fabrics proof against fire. He takes 25 lbs. of sugar of lead, and 15 lbs. of litharge, and boils them for half an hour in 40 gallons of water, when the liquor is allowed to settle. Any quantity of the clear liquid that will suffice to cover the cloth to be operated upon is now taken, and the cloth is immersed and freely saturated in it, then dried in the open air. The cloth is now immersed for about one hour in a hot, and moderately strong solution of the silicate of soda, then thoroughly washed in cold water and dried. By these operations an insoluble silicate is formed within the pores of the cloth, thus making it fire proof.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

RAILWAY ENTERPRISE IN KANSAS.

The Leavenworth, Pawnee, and Western Railroad Company has recently obtained, by treaty with the Delaware Indians, about 200,000 acres of land. This land is situated between the Missouri and Kansas Rivers. A condition of the cession of this tract of land is, that the company shall construct a railroad from some point on the Missouri River to the western limit of the Delaware Reserve.

The contemplated railroad will commence at Leavenworth and be constructed to Lawrence. From the latter place it will be pushed westward to Fort Riley, and thence up the Smoky Hill valley toward Pike's Peak.

As a railroad route the Kansas valley possesses this advantage, that it accommodates and can command the traffic of Utah on the north, and Pike's Peak to the west, and of Mexico and Arizona to the southwest. In this respect it is far superior to the valley of the Arkansas, which is too far south to serve as an avenue for the trade of Utah. In like manner the Platte route is so far north as to be inaccessible from New Mexico and Arizona.

It is estimated that there are at present eighteen thousand heavy freight teams engaged in the trade with Utah, Pike's Peak, New Mexico, and Arizona. The amount of freight to the West by these teams is not less than sixty thousand tons. This business is rapidly increasing. When the present slow, cumbersome, and expensive mode of conveyance shall have been supplanted by the railroad, this traffic will assume a magnitude of which we can at present form little conception.

The Leavenworth, Pawnee, and Western Railroad Company will be connected with the Hannibal and St. Joseph Railroad, and also with the Pacific Railroad, which is now gradually approaching Kansas City. When these results are obtained, the contemplated road will have a close railroad connection with the two great centers of western trade—Chicago and St. Louis—and will therefore be in communication with every important commercial point from the Lakes on the north to the Gulf on the south.

The company intend to push the work vigorously, and in a year from the present time it is anticipated that the road will be opened most of the way to Fort Riley. The route is very level, running along the rich Kansas bottom lands—so level and feasible that in one place there is forty miles of continuous straight line!

The treaty which has been made with the Delawares will give this company abundant resources, and capitalists in New York and Boston are ready, as we learn, to invest in the enterprise. The Delawares have still eighty thousand acres of choice lands—enough to supply each man, woman, and child of its tribe with a farm of eighty acres—quite as much, probably, as they will ever need for agricultural purposes. The vigor with which this enterprise is entered upon indicates that, before many twelve months have passed, there will be railway communication with the rapidly growing cities of the central gold regions of the continent. While members of Congress are making speeches about northern, southern, central, and sectional lines, private enterprise is steadily at work, extending from the Atlantic and Pacific sea the iron bonds of union.

MINNESOTA RAILWAY SYSTEM.

A writer in the *Railway Review* gives the following sketch of the projected railroads of Minnesota:—

LENGTHS OF THE LAND-GRANT RAILROADS.

PROJECTED LINES.

				Miles.
Minnesota & Pacific	Main	Stillwater	Sioux Wood River	220
"	Branch	St. Anthony	St. Vincent	400
"	Branch	St. Paul	St. Paul	1
Southern Minnesota.	Main	St. Paul	Southern boundary of State, in direction of mouth of Sioux Wood River	165
"	Branch	St. Anthony	Shakopee	25
Root River	Main	La Crescent	Rochester	79
Minneapolis & Cedar Valley.	Main	Minneapolis	Iowa line, W. of R. 16	112
Transit	Main	Winona	Western boundary of State, S. of 45° N. latitude	268
Total				1,270

AS SURVEYED AND LOCATED, 1857.

Minnesota & Pacific	Main	Stillwater	Point on Sioux Wood River, seven miles south of Breckinridge	222
"	Branch	St. Anthony	Crow Wing	116
"	Branch	St. Paul	St. Paul	1
Southern Minnesota	Main	West St. Paul	R. line 31-32 of T. 107	114½
"	Branch	St. Anthony	Junction one mile east of Shakopee	23½
Root River	Main	La Crescent	Rochester	79
Minneapolis & Cedar Valley.	Main	Minneapolis	Iowa line, three miles east of Cedar River	114
Transit	Main	Winona	R. line 31-32 of T. 110	175
Total				845

As yet, however, only about 300 miles of all these projected roads have been granted.

Our railway system does not as yet provide for communication with the waters of Superior. A grant of lands was made in 1854 for this purpose, but was soon after repealed. Undoubtedly the most important lines for the commercial development of the country are those which shall connect the waters of Superior and Red River with the waters of the Mississippi, the one furnishing Minnesota an outlet to the Atlantic upon equal terms with Illinois and Wisconsin, and the other furnishing an outlet through Minnesota for the great northwestern valleys of the Winnipeg, with the nucleus of a railroad to the Pacific, the root of a mighty system of inter-oceanic communication. Adding to the land-grant system a road to Superior, we will have a total length of 1,420 miles of road.

Of the projected land-grant lines, the main trunk of the Minnesota and Pacific, with its eastern terminus at Stillwater, will drain the commerce of the Upper Mississippi Valley, and develop the fertile plains of the Red River. A branch of this road from Minneapolis will traverse the wide and beautiful champaigns between the Minnesota and Mississippi. The Minnesota Valley Road will complete the fine natural communications of that district with the Mississippi, towards Lake Superior. The Transit, with its terminus at Winona, and the Root River, opposite La Crosse, will give the wheat districts of southern Minnesota, and the new territory of Dacotah, an outlet towards Chicago. All these lines run in an easterly and westerly direction, but the whole system is knit together by the north and south line of the Minneapolis and Cedar Valley, connecting the pine regions of the north, at the Falls of St. Anthony, the principal seat of lumber manufactories, with the naked prairies of the south, and pointing to the natural outlet of Minnesota on Lake Superior.

BALTIMORE AND OHIO RAILROAD.

COST, EARNINGS, EXPENSES, ETC., OF THE MAIN STEM YEARLY OF THE BALTIMORE AND OHIO RAILROAD.

Years.	Cost of road, etc.	Mileage.	Gross earnings. Passengers.	Freight.	Total earnings.	Earnings, less expen's.	Dividends. Amount.	P. ct
1830.	$1,178,165	14	$14,711	.....	$14,711	$2,726		
1831.	2,000,000	61	27,250	$4,155	31,405	20,410	69,075	3
1832.	2,250,000	69	67,910	69,027	136,937	61,264		
1833.	2,500,000	69	83,233	121,447	195,680	57,195	30,061	1
1834.	3,000,000	81	89,182	116,255	205,437	67,035	.....	.
1835.	3,311,250	81	93,540	169,828	263,368	102,152	45,002	1
1836.	3,474,600	81	128,126	153,185	281,342	68,375	.....	.
1837.	3,600,000	81	145,625	155,676	301,301	12,176	.....	.
1838.	3,800,000	81	166,694	198,530	365,224	93,643	.....	.
1839.	4,000,000	81	173,860	233,487	407,347	93,647	.....	.
1840.	4,000,000	81	177,035	255,848	432,883	157,694	80,000	1¼
1841.	4,000,000	81	179,616	211,454	391,070	151,448	130,000	2
1842.	7,350,000	178	181,177	245,315	426,492	209,777	.....	.
1843.	7,570,911	178	274,617	300,618	575,235	279,402	140,000	2
1844.	7,641,821	178	336,876	321,743	658,619	346,986	175,000	2½
1845.	7,742,410	178	369,882	368,721	738,603	374,762	.....	.
1846.	7,725,100	178	413,341	468,346	881,687	426,847	210,000	3
1847.	8,064,597	178	447,020	654,917	1,101,937	611,108	210,000	3
1848.	8,798,479	178	434,540	779,124	1,213,664	551,558	227,400	3¼
1849.	8,798,479	178	394,497	846,708	1,241,205	596,571	361,302	5¼
1850.	8,798,619	178	395,830	945,975	1,341,805	732,216	531,209	7
1851.	13,038 590	206	355,155	994,067	1,349,222	653,303	568,393	7
1852.	18,000,000	302	375,654	949,809	1,425,563	615,384	608,181	7
1853.	20,708,028	380	464,245	1,569,174	2,033,419	797,792	294,099	3
1854.	22,218,850	380	569,091	3,076,518	3,645,909	1,619,397	.....	.
1855.	22,760,205	380	608,299	3,103,854	3,711,453	1,601,090	.....	.
1856.	23,304,720	380	672,999	3,712,952	4,385,951	2,001,172	302,348	3
1857.	24,413,948	380	732,262	3,884,736	4,116,998	1,856,213	302,848	3
1858.	24,802,646	380	682,877	3,174,609	3,856,486	1,325,287	.....	.
1859.	24,891,415	380	690,207	2,928,411	3,618,618	1,933,620	403,348	3
Total.	303,842,810	5,423	9,744,351	29,604,790	39,349,141	17,421,250	4,589,866	.
Aver.	10,128,094	181	324,812	986,826	1,311,638	580,708	186,329	2

The dividends from 1848 to 1852, inclusive, were paid in stock.

ABSTRACT OF THE TONNAGE TRANSPORTED EASTERLY FROM STATIONS OF THE MAIN STEM AND DELIVERED AT BALTIMORE FOR THE YEARS ENDING 30TH OF SEPTEMBER.

1832	29,416	1839	44,852	1846	94,670	1853	459,495
1833	37,166	1840 ...	60,503	1847	158,466	1854	661,567
1834	36,192	1841	40,482	1848	157,405	1855	622,589
1835	46,979	1842 . ..	36,616	1849	176,610	1856 . ..	703,377
1836	40,805	1843	52,684	1850	230,388	1857	723,019
1837	40,696	1844	57,107	1851	246,724	1858	578,085
1838	45,663	1845	71,061	1852	252,243	1859	566,214
1st 7 years	276,917	2d 7 years	363,255	3d 7 years	1,316,506	4th 7 y'ars	4,314,377
Average..	39,559	Average..	51,894	Average..	188,072	Average..	616,639

FRENCH RAILWAYS.

According to an article in the *Journal des Chemins de Fer*, the total length of the network of French railways was, on the 1st July last, 16.539 kilometres, (⅝ of a mile each,) of which 7,880 kilometres were old, and 8,659 new. Of this length, 9,217 kilometres are at work; 5,563 in course of construction, or shortly to be so; and 1,647 only eventually conceded. The sum expended, and to be expended, amounts to 5,781 millions, of which 3,589,500,000 francs had been employed up to the 31st of December, 1859.

NEW YORK STATE CANALS.

We take from POOR'S "History of Railways," an interesting work just published, the following in relation to the New York canals :—

There is no doubt that the Erie, the leading work in the system of New York canals, is by far the most important artificial highway in the United States, both in the extent of its present commerce and in the influence it has exerted in advancing the population, wealth, and material interests of the country. Its opening, in fact, gave, for the first time, commercial value to the products of the interior. According to a report made in 1817, to the Legislature of the State of New York, the cost of transporting a ton of merchandise from Buffalo to Albany equaled $100, a sum far exceeding the value, in New York, of most of the agricultural products of the country. The time required was twenty days. The canal at once reduced the cost from $100 to $20, and the time from 20 to 8 days. With the improvements on the canal, and the enlargement, the cost of movement has been steadily reduced, so that, for the past year, the average charge for transporting a ton of merchandise from Albany to Buffalo was $2 40 including tolls. The tabular statements accompanying this memoir present in a condensed manner the progress, amount, and value of the commerce of this great work :—

STATEMENT OF THE RECEIPTS AND PAYMENTS ON ACCOUNT OF ALL THE STATE CANALS FROM THE COMMENCEMENT OF THE WORKS TO THE 30TH SEPTEMBER, 1859.

RECEIPTS.

Loans (and revenue certificate of 1851-2)	$50,449,552
Premiums on loans, etc.	2,521,443
Temporary loans	2,851,467
Gross tolls	70,565,737
Tax	3,827,191
Vendue duty	3,592,039
Salt duty	2,055,557
Steamboat tax	73,509
Sales of land	320,518
Interest on investments and deposits	3,484,594
Rent of surplus water	76,034
General fund for deficiencies	1,386,499
Erie and Ch. Canal for Black River Canal and Erie Canal feeder	290,098
Erie and Champlain Canal for deficiencies	4,540,971
Miscellaneous	1,213,083
Total	$146,858,123

PAYMENTS.

Discounts on loans	$390,061
Principal of loans	26,214,645
Premium on purchase and investment of stock	366,777
Temporary loans	2,643,967
Interest on loans	27,413,493
Canal Commissioners—construction	55,106,814
Seneca Lake Navigation Company	53,872
Black River Canal for Erie Canal feeder	290,098
General fund	4,137,603
General fund debt	3,884,417
Deficiencies of lateral canal and Oneida River improvement	4,540,971
Oneida Lake Canal feeder	50,000
Repairs of canal—contractors	571,364
" " superintendents	16,360.716
Collectors and inspectors	1,526,638
Weigh-masters	182,928
Miscellaneous	2,194,716
Balance on hand 30th September	1,319,104
Total	$146,858,123

STATEMENT SHOWING THE AMOUNT OF TOLLS (INCLUDING RENTS FROM SURPLUS WATER) AND THE COST OF COLLECTION AND REPAIRS FROM 1826, YEARLY.

Fiscal years.	Gross tolls collected.	Expenses & repairs.	Fiscal years.	Gross tolls collected.	Expenses & repairs.
1826.....	$854,508	$531,676	1845.....	2,875,533	738,106
1827.....	881,134	494,701	1846.....	2,798,850	639,353
1828..... ...	831,002	393,518	1847.....	3,463,710	643,766
1829.....	817,919	357,588	1848.....	3,156,968	855,851
1830.....	1,045,163	292,674	1849.....	3,378,920	686,804
1831 (9 months)	751,269	224,420	1850.....	3,393,081	835,966
1832.....	1,112,918	428,965	1851.....	3,703,999	907,730
1833.....	1,388,381	487,797	1852.....	3,174,857	1,049,046
1834.....	1,387,715	534,898	1853.....	3,162,190	1,098,377
1835.....	1,484,596	510,525	1854.....	2,982,115	1,237,866
1836.....	1,598,455	467,599	1855.....	2,632,901	989,792
1837.....	1,325,610	608,994	1856.....	3,721,741	786,633
1838.....	1,462 275	622,027	1857.....	2,531,804	970,453
1839..... ...	1,655,789	504,758	1858.....	2,047,891	1,078,879
1840.....	1,606,827	575,021	1859.....	1,814,362	897,879
1841.....	1,989,687	514,518			
1842.....	1,797,454	642,584	Total.....	$69,564,425	22,675,768
1843.....	1,953,829	531,146	Average...	2,046,013	666,984
1844.	2,388,457	636,858			

STATE CANALS AND THEIR MANAGEMENT.

An intelligent correspondent, says the *Railway Review*, sends us the following figures in regard to the interminable question of canal management:—

By the report of our Controller, it appears that the cost of these great works, which "have enriched the parties engaged in the carrying trade," amounts to $42,269.170 52—that the debt has increased from 1836 to '58, $18,131.958 29—that the interest paid during the same period, amounts to $20.558,686 95—and that $17,867,268 73 have been paid to the managers for enlargement since 1854. In the report of the Auditor is the following results of its business during the last ten years:—

Ascending and descending traffic amounted to.....tons	37,886,141
Average per year.....	3,788,614
Value.....	$1,760,890,960
Average per year.....	136,089,096
Tolls received.....	27,133,357
Average	2,713,335

Tolls—equal to 41.62 cents per ton—tolls 10 per cent on value. Of the amount thus carried, the—

	Tons.	Toll.	Per ton.
Product of the forest.....	15,044,653	$5,025,985	
Average.....	1,504,465	502,598	33.40 cents.
Proportion to entire tonnage.....	39¾ p. ct.	18¾ p. ct.	
Agricultural produce.....	11,152,465	11,760,685	
Average...	1,115,205	1,176,068	$1.0C08
Proportion to entire tonnage.....	29½ p. ct.	41¾ p. ct.	
Manufactures	2,513,654	1,134,607	
Average.....	251.365	113,460	45.14 cents.
Proportion to entire business.....	6⅔ p. ct.	4½ p. ct.	
Merchandise.....	3,277,155	5,272,375	
Average.....	327,715	552,737	$1 68—60c. pr ton.
Proportion to entire tonnage.....	8½ p. ct.	20½ p. ct.	
Other articles.....	6,528,580	1,627,603	
Average	652,858	162,740	
Proportion to entire tonnage.....	17½ p. ct.	5¾ p. ct.	

Thus we have the product of the forest, at 39¾ per cent of the entire tonnage, and only 18¾ per cent of the gross receipts, while the agricultural produce, amounting to 29½ per cent of the entire tonnage, paid 41½ per cent of the gross receipts.

In the period between 1850 and 1859, the increase in the lumber tonnage is 280,044 tons, and the increase in tolls is but $115,177; while the product of the farm fell off 148,835 tons, and the tolls were reduced from $1,492,639 to $754,855.

CANAL COMMERCE.

We annex a comparative statement, derived from official records, of the receipts at Richmond, and shipments thence, of various articles, per James River and Kanawha Canal, during the fiscal years ending 30th September, 1858–59, and '60. Where the blanks occur no record was kept:—

Inward.	1860.	1859.	1858.
Apples.....bbls.	307	2,103	....
Bacon.....lbs.	73,818	23,749	....
Bbls. empty, liquor.....	2,363	1,073	....
" " flour.....	28,137	32,893	....
Butter.....lbs.	46,153	76,620	....
Coal.....tons	21,305	14,156	17,477
Corn.....bush.	10,933	12,565	10,457
Corn meal.....	689	713	....
Copper ore.....tons	1,064	1,072	226
Cotton.....bales	315	none	....
Flaxseed.....bush.	7,335	1,517	....
Flour..... bbls.	78,711	104,434	112,969
Fruit, dried.....lbs.	343,319	453,051	....
Hay.....bales	5,010	.....	....
Iron, pig..... .tons	4,172	4,814	5,298
Lard.....lbs.	7,600	25,781	....
Lead.....tons	109	271	507
Leather.....lbs.	65,836	102,054	....
Live Stock, viz.:—			
Cattle.....	25	12	....
Calves.....	49	19	....
Horses.....	14	9	....
Hogs.....	735	876	....
Lambs.....	10	12	....
Sheep.....	131	57	....
Oats.....bush.	577	1,000	690
Shot.....bags	7,969	8,000	....
Stone.....tons	20,898	7,015	3,309
Stems..... hhds.	2,308	1,378	1,138
Tobacco.....	15,267	13,183	16,286
" manufactured.....pkgs.	53,076	57,181	48,408
Wheat.....bush.	695,388	723,477	916,482
Whisky.....	343	513	....
Wood.....cords	9,540	5,689	6,077
Wool.....lbs.	35,789	31,252	....
Outward—			
Castings.....tons	362	259	62
Coal.....	9,724	6,691	6,226
Fish..... .....bbls.	3,952	6,246	5,315
Guano.....tons	9,072	8,209	6,304
Iron, bar... .....tons	2,518	2,601	486
Nails.....kegs	16,390	14,288	11,364
Plaster..... tons	9,075	5,145	6,112
Salt.....sacks	26,045	25,586	27,621

STATISTICS OF AGRICULTURE, &c.

CROPS WITHOUT MANURE.

Already we are spending £4,000,000 a year in foreign manures, says the London *News*, and to have to increase this expenditure will be a counterpoise to any economy of grass at home. As if to meet this anxiety, agricultural art is now showing that the greater part of this outlay for foreign manures is needless. When the agricultural knowledge which is now enriching the few has extended to the many, it will be a subject of surprise and vexation that we should have thrown away millions of money and years of disputation with the Peruvian and other governments on foreign manures, which have been for the most part unnecessary. It is to the application of geological and chemical science that we owe the discovery of the waste we have been making. As an illustration, take the case of the Lois Weedon husbandry, now at last exciting the attention which it should have obtained a dozen years ago. At Lois Weedon an agriculturist has for seventeen years raised wheat crops on the same soil—crops now amounting to from thirty-six to forty bushels per acre—without the application of any manure at all. This gentleman, the Rev. S. SMITH, understood the composition of our clay lands—the great expanse of wheat land which we have as yet hardly begun to develop. It was clear to him that the mineral elements requisite for wheat production had never been either developed or husbanded as they might be by our traditional methods of tillage; and he has proved, by a continued success of seventeen years, that he judged rightly. It is enough to say here that he has turned up an increasing depth to the air, and that by this method half the soil is left fallow each year alternately. He sows his wheat in triple rows with the space of a foot between them, and leaves an interval of three feet—the stubbles of each season being the fallows of the next. The unequaled quality of the straw thus airily grown, and the excellence of the grain it bears, are undisputed; and there can be no question as to the productiveness when, in fact, the moiety of each acre produces the quantity we have stated, on soil which was at first of only average quality. The economy of manure is even carried further. Light soils, unsuitable for wheat, are manured with clay merely, and thus raised to a wheat-bearing quality. Improvements of a kind like this open wide prospects of economy and fertility at once, and should raise our spirits more than any bad weather should depress them; and when we see that seventeen years may be required to teach us how to use our own soil for the production of our daily food, we may well question whether our occasional difficulties from untoward seasons are not evils which we may expect to outgrow.

This improved husbandry is a sufficient answer to the apprehensions expressed by some melancholy men who calculate the number of years that the guano and other special manures will hold out, and conclude that then we must starve. But there is another fact which has a bearing on this. Our free-trade in corn has so lowered the price of grain, and restricted its fluctuations, that not only are the speculations of corn dealers reduced to regularity, but the cultivation of wheat is being brought within its natural limits in England. Our farmers are more and more devoting their least suitable wheat lands to the growth of roots,

so that there may still be all the stock, and consequently all the manure that can possibly be wanted. This is a direct and natural consequence of the free importation of grain, by which the price will always be kept moderate. So, at least, the farmers in our wheat-growing districts say, and we have no doubt they are quite right. If, together with this, we learn to make such use of our clay soils as is made at Lois Weedon, while by commerce we command the surplus of all the lands of the globe, we may feel assured that in coming generations there will always be food enough for man and beast.

THE LACTOMETER.

An instrument called the lactometer, says the Boston *Courier*, is used. it is said, by the milk inspector of Boston to determine, when the question is raised, whether or not a specific quantity of milk has been adulterated. In order to show the utter worthlessness of this instrument. it is only necessary to present the following facts:—

The milk of 42 cows was tested by this instrument, which showed a variation from 1008 to 1031; of these 42 cows, several gave milk of 1023, as shown by the lactometer, and but three as high as 1031.

Fourteen other cows' milk was tested by the lactometer, with the following results:—

No. of cows.	Milk, specific gravity.	Skim milk, specific gravity.	Cream, pr cent.	No. of cows.	Milk, specific gravity.	Skim milk, specific gravity.	Cream, pr cent.
1.....	1031	....	2	8.....	1029	1030	8
2.....	1029	....	2¼	9.....	1030	1031	7
3.....	1019	1027	26	10.....	1024	1028	10
4.....	1008	1026	80	11.....	1027	1031	10
5.....	1030	....	2½	12.....	1023	1030	25
6.....	1027	1030	9	13.....	1024	1031	32
7.....	1026	1028	13	14.....	1025	1029	10

From an examination of this table, it appears that milk may be of a high specific gravity and poor in cream, as see 1; or it may be of low specific gravity and produce a large quantity of cream, as see 4, above. It will also be noticed that the removal of cream increases the density of the milk in every case. It will be further noticed that none of the samples of a low specific gravity show a deficiency of cream. The specific gravity of the serum of milk is due mainly to the sugar contained in it.

Another test was made by taking the first milk drawn and the last of the same milking, with the following results:—

Cows.	Milk, specific gravity.	Cream, pr cent.	Second milk. Milk, specific gravity.	Cream, pr cent.	Cows.	Milk, specific gravity.	Cream, pr cent.	Second milk. Milk, specific gravity.	Cream, pr cent.
1.....	1027	9	1033	25	6.....	1030	8	1022	25
2.....	1026	13	1023	22	7.....	1029	3½	1026	7½
3.....	1027	8	1025	10	8.....	1031	2	1030	5
4.....	1029	7	1024	15			61½		141½
5.....	1030	11	1024	32					

An examination of the tables show that the second milks are of a much lower specific gravity than the first, and had the lactometer test above been relied on, they would have been pronounced inferior in richness to the first, a conclusion the reverse of what is shown to be the fact; as the first eight samples amounted to 61½ per cent of cream, while that of the last amounted to 141½, that is to say,

more than double the percentage of cream. This fact shows how little can be known by the lactometer.

A similar test was made of ten samples of morning and evening milk, with the percentage of cream and curd. The average specific gravity of the morning milk was 1029; total of cream, 77½; of curd, 693. Of the evening milk, average specific gravity, 1027; total of cream, 96½; curd, 810. It appears from the above that the ordinary specific gravity of milk varies from 1031 to 1008.

Mr. FLINT, in his book on "Dairy Farming," says: "No reliable (trustworthy) conclusion, as to whether a particular specimen of milk has been adulterated or not, can be drawn from the difference in specific gravity alone. But knowing the specific gravity, at the outset, (just what the milk inspector does not know,) of any specimen of milk, the hydrometer (lactometer) would show the amount of water added. This cheap and simple instrument is of frequent service." Not, however, for detecting adulteration in any case where the specific gravity is unknown when milked.

It is hoped, therefore, that Boston will not much longer tolerate this miserable lactometrical interference with the milk business. If it be necessary to have a milk inspector, appoint a chemist that understands organic chemistry, and how to apply it.

It is seen from the above table that skim milk is of a higher specific gravity than unskimmed milk. What then prevents the dealer from reducing skim milk to the average test of good milk by adding water, whose specific gravity is 1000, and then selling it for pure milk, according to the inspector's lactometer?

Again, milk varies in its composition, as seen by the following table of ingredients in 100 parts:—

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Casien.....	1.54	1.52	2.9	4.0	4.48	1.7	1.82	4.08	4.50	1.6
Butter	4.37	3.55	2.3	4.6	3.13	1.4	0.11	3.32	4.20	trace
Sugar.....	5.75	6.50	3.8	3.8	4.77	6.4	6.08	5.28	5.0	8.7
Ash	0.53	0.45	...	0.6	0.60	...	0.34	0.58	0.68	89.6
Water	87.81	87.98	91.0	87.0	87.02	90.05	91.65	86.8	85.62	

Of these analyses the first three are woman's milk; 4th and 5th, cow's; 6th and 7th, ass's; 8th, goat's; 9th, ewe's; and 10th, mare's. Of these, 1 and 4 are by Dr. LYON PLAYFAIR; 3 is the average of two analyses by HAIDLEN; 5 is the average of five analyses by PELIGOT; and 2, 5, 7, 8 and 9 are by HENRY and CHEVALLIER.

The following table gives the results of numerous analyses of cow's milk—ingredients in 100 parts:—

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Casien.....	3 32	4.2	4 0	4.48	4.17	3 42	3.8	5.6	5.1	3.6
Butter	3.99	4.92	4.6	3.13	3.70	2.29	3.5	3.6	3.0	4.0
Sugar.....	5.01	4.16	3.8	4.77	4.35	2.79	6.1	4.0	4.6	5.0
Ash	0.22	0.55	0.6	0.60	0.59	0.52				
Water	87.46	86.15	87.0	87 02	87.19	90.42	86.6	86.8	87.3	87.4

Of these, 1 is the average of ten analyses by BOUSSINGAULT, from cows about two hundred days after calving, and fed on rather poor feed; Nos. 2 and 3 are the averages of eight analyses by PLAYFAIR, of autumn milk; all the others are by celebrated chemists. These tables will convince any one that it is no easy matter to convict a person of adulterating milk, when done by water in an ordinary degree, either by chemistry or the lactometer.

STATISTICS OF POPULATION, &c.

POPULATION OF OHIO.

The *National Democrat* gives a table of the census returns of the Northern District of Ohio, by counties, contrasted with the census returns of 1850, and the Cincinnati *Enquirer* publishes a table of the population of the Southern District, as taken by the Marshal, with the single exception of Hamilton County. This is not given, as the returns for Cincinnati are not yet fully revised, and there will be probably several thousand names from the more thickly-settled wards to add to the enumeration of 162,000, which was the last footing ascertained. The following is a table of the population of Ohio, by counties, arranged alphabetically :—

	1850.	1860.		1850.	1860.
Adams	18,883	20,310	Lorain	26,086	29,836
Allen	12,109	21,184	Lucas	12,868	25,770
Ashland	23,813	22,976	Madison	10,015	13,099
Ashtabula	28,767	31,956	Mahoning	23,737	25,899
Athens	18,215	21,406	Marion	12,618	15,544
Auglaize	11,338	17,199	Medina	24,141	22,695
Belmont	34,600	36,438	Meigs	17,971	26,512
Brown	27,332	29,962	Mercer	7,712	14,110
Butler	30,789	35,853	Miami	24,999	30,131
Carroll	17,685	15,771	Montgomery	35,218	51,247
Champaign	19,782	22,659	Monroe	28,351	25,783
Clark	22,178	25,269	Morgan	28,585	22,120
Clermont	30,455	33,025	Morrow	20,280	20,492
Clinton	18,858	21,601	Muskingum	45,049	44,372
Columbiana	33,621	32,845	Noble, (new county)	.....	21,779
Coshocton	25,674	25,127	Ottawa	3,808	7,017
Crawford	18,177	24,023	Paulding	1,766	4,933
Cuyahoga	48,038	78,196	Perry	20,775	19,678
Darke	20,276	25,976	Pickaway	21,006	23,469
Defiance	6,966	11,887	Pike	10,953	13,643
Delaware	21,817	23,979	Portage	24,419	24,255
Erie	18,568	24,473	Preble	21,736	21,797
Fairfield	30,264	30,723	Putnam	7,221	12,826
Fayette	12,726	15,935	Richland	30,979	31,224
Franklin	42,909	51,619	Ross	32,074	35,076
Fulton	7,781	14,092	Sandusky	14,805	21,471
Gallia	17,063	22,046	Scioto	18,428	24,547
Geauga	17,827	15,879	Seneca	27,104	30,930
Greene	21,946	26,187	Shelby	13,958	17,511
Guernsey	30,438	24,483	Stark	39,878	43,060
Hancock	16,751	22,892	Summit	27,485	27,580
Hardin	8,251	13,634	Trumbull	30,490	30,641
Harrison	20,157	19,152	Tuscarawas	31,761	32,509
Henry	3,434	8,913	Union	12,204	16,535
Highland	25,781	27,787	Van Wert	4,793	10,249
Hocking	14,119	15,978	Vinton	9,353	13,656
Holmes	28,452	28,808	Warren	25,560	26,541
Huron	26,208	29,741	Washington	29,540	36,279
Jackson	12,719	17,944	Wayne	32,981	32,665
Jefferson	29,033	26,159	Williams	8,018	16,666
Knox	28,871	27,893	Wood	9,157	16,934
Lake	14,654	15,590	Wyandotte	11,194	15,621
Lawrence	15,246	23,262			
Licking	38,846	38,048	Total	1,980,268	2,343,982
Logan	19,162	21,013			

POPULATION OF MICHIGAN.

The United States Marshal has furnished the Detroit *Free Press* the results of the census recently taken by his deputies in this State. In two districts the population has been estimated. The figures in the others are reported as official. The table we subjoin shows the results of the census of 1850, and that of 1854, (taken under State authority,) as well as the late returns, and we take it entire from the paper referred to:—

	1850.	1854.	1860.
Allegan	5,125	7,801	16,090
Alcona, Alpena, Antrim, Crawford, Ioeco, Kalkaskia, Missaukie, Montmorenci, Ogema, Oscoda, Otsego, Roscommon, Wexford	†	....	651
Bay	§	....	3,166
Barry	5,972	7,821	13,871
Berrien	11,417	13,849	22,379
Branch	12,472	15,724	20,986
Calhoun‡	19,162	22,768	30,747
Cass	10,907	13,124	17,728
Chippewa	898	1,962	1,603
Clinton	5,102	8,042	13,915
Delta	†	....	1,192
Eaton	7,058	10,965	16,484
Emmett	....	2,679	1,118
Genesee	12,031	15,676	22,497
Gratiot	†	....	3,044
GrandTraverse	....	911	1,470
Hillsdale	16,159	19,188	25,707
Houghton	708	2,873	9,190
Huron	210	702	3,165
Ingham	8,631	11,222	17,427
Ionia	7,597	10,727	16,685
Isabella, Clare	†	....	1,443
Jackson	19,431	21,855	26,706
Kalamazoo	13,179	16,893	24,663
Kent	12,016	17,869	30,721
Leelenaw, Manitou	†	....	3,201
Lapeer	7,029	9,704	14,759
Lenawee	26,372	31,148	38,122
Livingston	13,485	14,185	16,881
Manistee	†	....	971
Mackinaw	†	1,645	1,960
Macomb	15,580	18,114	22,887
Marquette	186	¶	2,822
Mason	98	¶	882
Mecosta, Osceola	†	....	997
Michilimackinac*	3,598	....	‖....
Midland, Gladwin	65	¶	808
Monroe	14,698	18,122	21,595
Montcalm	891	2,060	3,974
Muskegon	**	....	3,947
Newaygo, Lake	510	979	2,218
Oakland	31,270	31,884	38,374
Oceana	300	¶	1,766
Ontonagon	389	3,662	4,570
Ottawa	5,587	7,337	13,222
Presque Isle	†	....	26
Saginaw	2,609	1,053	12,700
Sanilac	2,112	3,529	7,659
Schoolcraft	16	¶	78
Sheboygan	†	....	515
Shiawassee	5,280	7,419	12,356
St. Clair	10,420	16,897	26,623
St. Joseph	12,725	15,087	21,103
Tuscola	291	1,504	4,894
Van Buren	5,800	7,780	12,226
Washtenaw‡	28,567	28,836	39,196
Wayne	42,756	65,778	75,594
Total	397,654	509,874	749,969

The above figures are all taken from the official returns, excepting one district of Washtenaw County and two of Calhoun, in which the census is not yet completed. The estimates of these districts are based upon the proportionate increase of the other districts in the same counties from which returns have been received, and the variation will not probably be one hundred from correct.

These figures make the increase of population in the State since the census of 1850, 352,315. The increase since the State census of 1854 has been 240,595.

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* And twenty-one unorganized counties.
† Included in Michilimackinac and twenty-one unorganized counties in the census of 1850.
‡ Partly estimated.
§ Included in Saginaw at the last census.
‖ Otherwise enumerated.
¶ No returns.
** Included in Ottawa at the last census.

CENSUS OF BROOKLYN AND KINGS COUNTY.

The following are the official returns of the census of the city of Brooklyn and county of Kings, as prepared by Mr. THOMAS P. MORRIS, Superintendent of Kings County Census. The population of 1855 is also given, in order to show the difference as compared with the census of 1860:—

Wards.	1855.	1860.	Increase.	Dec.	Wards.	1855.	1860.	Increase.	Dec.
1.....	6,441	6,968	527	...	14.....	12,414	15,476	3,062	...
2.....	8,383	9,819	1,436	...	15.....	6,559	10,567	4,008	...
3.....	8,900	10,018	1,187	...	16.....	15,350	21,171	5,821	...
4.....	12,282	11,758	....	524	17.....	5,508	7,946	2,428	...
5.....	16,352	17,401	1,049	...	18.....	2,601	4,317	1,716	...
6.....	18,490	22,720	4,230	...	19.....	....	6,696	....	...
7.....	12,523	12,096	....	427	Flatbush.	3,280	3,470	190	...
8.....	5,318	9,187	3,869	...	New Lots.	2,261	3,273	1,012	...
9.....	9,133	17,351	8,218	...	N. Utrecht	2,730	2,781	51	...
10.....	21,749	25,219	3,470	...	Flatlands.	1,578	1,652	74	...
11.....	22,213	28,826	6,613	...	Gravesend	1,256	1,286	30	...
12.....	6,990	11,086	5,096	...					
13.....	14,044	17,982	3,938	...	Total...	216,855	279,136	62,881	951

The increase in the city of Brooklyn over 1855 is 60,473. The 19th ward having been set off from the old 7th ward, accounts for the apparent decrease in the latter ward; but it is certainly strange that the returns should show a decrease of population in the 4th ward.

POPULATION OF KANSAS.

We publish below the census of the territory, as taken by the United States Marshal, by counties. This does not include the census of any portion of the territory west of the 6th principal meridian, but only of the counties included within the limits of the State of Kansas as prescribed in the Wyandotte Constitution. The population of the Pike's Peak region amounts to about 75,000 in addition:—

Atchison.....	7,747	Dickinson	303	Marshal.....	2,275
Anderson	2,403	Dorn	50	Morris.....	800
Allen...	3,120	Franklin.....	3,040	Madison	680
Breckinridge ...	3,168	Godfrey.....	1,893	Nemaha.....	2,551
Bourbon	6,102	Greenwood.....	360	Osage	1,128
Brown.....	2,665	Hunter.....	194	Pottawatomie...	1,856
Butler.....	640	Johnson.....	4,513	Riley	1,260
Coffey.....	2,845	Jefferson.....	466	Shawnee	3,405
Chase.....	912	Jackson.....	2,307	Wyandot.....	2,609
Clay.....	170	Leavenworth ...	12,900	Waubaunsee....	993
Douglas.....	9,207	Linn.....	6,347	Washington	387
Doniphan	8,148	Lykins.....	5,095	Woodson.....	77
Davis.....	1,189	McGee..... ..	1,501	Wilson.....	27
Total					109,401

POPULATION OF LOUISVILLE, KENTUCKY.

The population of the city of Louisville, as returned by the Assistant Marshal for taking the eighth census, is as follows:—

	1st ward.	2d ward.	3d ward.	4th ward.	5th ward.	6th ward.	7th ward.	8th ward.	Total.
Whites.....	16,067	7,845	5,360	4,095	4,421	6,662	6,053	14,322	64.825
Black.....	252	260	840	1,071	810	931	782	455	5,401
Total	16,319	8,105	6,200	5,166	5,231	7,593	6,835	14,777	70,226

The population in 1850 was 43,194, thus showing an increase of 27,032. The following facts and figures will also be found valuable and interesting to our readers :—

The population of the city of Louisville, as returned by the United States Marshal, shows an aggregate of	70,226
The census for 1857, as taken by commissioners appointed by the General Council, shows an aggregate of	57,585
Showing an increase in less than three years of	12,641

The following table will show the increase for the above period (three years) in the several wards :—

	1st ward.	2d ward.	3d ward.	4th ward.	5th ward.	6th ward.	7th ward.	8th ward.	Total.
1860.....	16,819	8,105	6,200	5,166	5,231	7,593	6,835	14,777	70,226
1857.....	12,315	6,818	5,265	4,544	4,706	5,951	5,496	11,970	57,585
Increase..	3,504	1,287	935	622	525	1,642	1,339	2,787	12,641

OCCUPATIONS OF EMIGRANTS.

Of the 120,432 emigrants who left Great Britain and Ireland last year, 2,016 of the men were agricultural laborers, gardeners, and carters, 176 bakers, 166 blacksmiths and farriers, 26 book binders and stationers, 287 boot and shoe-makers, 49 braziers, tinsmiths, and whitesmiths. 22 potters, brick, and tile makers, 606 bricklayers, plasterers, and masons. 31 builders, 114 butchers and poulterers, 71 cabinet-makers and upholsterers, 1,383 carpenters and joiners, 27 carvers and gilders, 682 clerks, 29 clock and watch-makers, 21 coach-makers and trimmers, 18 coal miners, 54 coopers, 17 cutlers, 145 domestic servants, 10 dyers, 11 engravers, 141 engineers, 4,439 farmers, 1,454 gentlemen, professional men, and merchants, 17 jewelers and silversmiths, 23,286 general laborers, 3 locksmiths and gunsmiths, 92 millers and maltsers, 8 millwrights, 771 miners and quarry-men, 262 painters, paper hangers, and plumbers, 111 pensioners, 70 printers, 10 rope-makers, 42 saddle and harness makers. 4 sail-makers, 46 sawyers, 269 sea-men, 24 shipwrights, 1,045 shopkeepers. 331 smiths, 290 spinners and weavers, 34 sugar bakers and boilers, 10 surveyors, 447 tailors, 1 tallow chandler, 24 tanners and curriers, 25 turners, 69 wheelwrights, 8 woolcombers and sorters, and the 6,965 of trades not particularly specified. Of the other sex, 7,107 were domestics and farm servants. 119 gentlewomen and governesses, 251 milliners, dress-makers, and needlewomen; 14,562 married women, and 18,032 of undistinguished occupation, (a large total, which seems to indicate that the official examination into the pursuits of the female sex is not of a very rigid nature.) The remainder of the emigrants were children, and of these 8,431 boys, and 8,130 girls, were under 12 years of age, 3,046 were infants, and 14,517 were undistinguished as to age or sex.

POPULATION OF THE CITY OF ST. ANTHONY, MINNESOTA.

Number of resident females.....	670	Number of females under 21.....	527
Population.....	3,237	Number under 4 years of age....	519
Persons under 21 years of age...	1,536	Number of males under 4 years...	253
Persons between the age of 4 & 21	1,017	Number of females under 4 years.	266
Number of males under 21.....	490		

MERCANTILE MISCELLANIES.

OBITUARY.

DEATH OF CAPTAIN SILAS HOLMES.

The death of this well known citizen and greatly respected "son of the sea" took place yesterday morning at East Greenwich, Rhode Island, at which place the deceased had spent the principal part, if not the whole, of last summer in the company of his friends there residing. He had been for some length of time in very feeble health, and his death had been daily expected by his friends, as he was far advanced in life, being in the 76th year of his age:—

Captain SILAS HOLMES was one of the leading shipping merchants of this city for many years. He first commenced his maritime career "before the mast," and during that period of his life, when he served as a "common seaman," he not only gained credit for his industry and energy of character, but also for his integrity, as may be judged from the following little anecdote related by one of his oldest acquaintances:—On one occasion, when the seamen of the vessel to which he belonged were being paid off, the old Quaker gentleman who owned the vessel (and who was always remarkable for his acuteness in scrutinizing the accounts of the men who worked it, in most cases making out the accounts himself,) seeing the deceased among the parties to be paid, said to him, "Silas, thee canst make out thine own account," and paid him according to it; which action, on the part of the old gentleman, was considered the greatest mark of confidence ever shown to any in his service.

In 1818, the deceased, who had worked his way up by his indomitable energy and perseverance, was appointed to the command of the ship Remittance, which was one of the vessels plying between this city and Liverpool. This vessel, during one of the voyages, unfortunately sprang aleak and sunk at sea; but as it was laden with naval stores, there was no jeopardy of life during the misfortune. In the year 1820, he, in company with JOHN W. RUSSELL, built the Phœbe Ann, a brig, which he commanded. This brig may be said to have been the pioneer of all the packets between this city and New Orleans. This vessel he was captain of for three years, and when he gave up the command, it may be said, without exaggeration, that he was completely driven from the sea, and made to live on shore by the underwriters and marine insurance offices in Wall-street. When plying between this city and New Orleans, it is said that, in the energetic desire of making quick passages, he was far too zealous, and ran the vessel aground more than once. When called upon by the "offices" to make an explanation, he is said to have replied to their interrogatories in somewhat of the following strain:—"By this accident I have learned nothing more than I knew before. I was previously aware that at any time I might run aground, very likely in or near the spot where I did, and I also know that I am very likely to do exactly the same thing in my next voyage." This set somewhat of a prejudice against him afloat, which resulted in his being compelled to retire from the sea; and which, like many other apparent misfortunes, was the very thing that helped to make his fortune. In 1823, he commenced the new line to New Orleans, and purchased the ship Crawford and others. In this line he was very successful up to the time when he sold out the business to the present owners, W. NELSON & Co., which was in the year 1840. In 1837, at the time of the commercial panic, he was compelled by his connection with some outside matters to suspend payment, and compromised with his creditors for fifty cents on the dollar. He, however, subsequently paid up the whole hundred. It is said that some of his then friends told him he might have easily gone on with his business without suspension, but he deemed otherwise; and, rather than risk the chance of an entire failure, and a greater loss to his creditors, he suspended. He also was con-

nected in the ownership of the first successful screw-lifting dock in this city, which dock, although for many years a source of many difficulties, still ultimately was a means of realizing great profits. He further was one of the directors of the Delaware and Hudson Canal Company, and it is owing in a great measure to his indefatigable energy that it became so successful. He not only made money himself in this concern, but he was the means of preventing many from selling out when the stock was very low, who would otherwise have done so to their future regret; at least they do not now feel sorry at having retained their shares. For many years he had retired into complete private life, and but little is known of him during that period outside of his own family. The deceased was for many years a prominent member of the "Old Brick Church," in Beekman-street, and was so when that edifice was taken down; but when the removal of that congregation to Murray Hill and the erection of the new building there took place, he transferred his church relation to Dr. McElroy's. He resided for some length of time at 48 Bond-street, to which house his body was removed, and from whence his funeral took place.

The deceased is said to have died worth at least, if not over, a quarter of a million of dollars. He was considered to be in his business relations during life a man of strict probity, and in his moral relations as estimable as could be desired by the most stringent Puritan. As a shipmaster he was unequaled, and was much respected by both passengers and crew. As he was a man of intellect and education, he was deemed by his passengers (who were mostly members of Congress and the first men of the time) as an equal in every way; and as he was very affable and pleasant in his manner, he won their esteem as well as their respect during the voyage. Although a married man, he never had any children, but his nephews and nieces were considered by him as such. Among them are some of the most important of our present merchants, and the late well-known WILLIAM HAZARD, of New Orleans, who perished from the ravages of the cholera in 1832, was one of his nephews. The deceased was a man of strong will and determination, and when he once set his mind on any course of action he was not to be frightened from it, nor would he flinch from apparent difficulties in the way. At one time, when an invetorate slave to the use of tobacco, both in smoking and chewing, he made up his mind to abandon it, and not all the persuasions of his friends or their statements of evil results of his sudden leaving it off, could make him refrain from immediately doing so. There are several anecdotes current about the evidences of his strong will, among which is the fact that, in consequence of one of the merchants, who had been in the habit of sending good by his vessels, saying continually "he would not send any longer by him" if so and so did not take place, he one day surprised him by refusing to carry the goods at all, stating to the merchant, when he inquired the reason of his so doing, that, as he had so often said he "would not send by him," he would keep him at his word, and he "should not do so." And a great length of time elapsed before he could be persuaded by his most intimate friends, and even the offering of the most abject apology by the offending merchant, to allow the goods to be sent by his vessels. He was well known by the shipping and other merchants, and his death is much regretted by many.

COMMERCE AND TRADE IN OLDEN TIME.

Mr. E. MERIAM, of the "Sage," contributes to the public the following on the occasion of the recent awful events in Syria:—

On the map of the Holy Land, in my old Bible, imprinted in London in 1599, a part of the Mediterranean Sea is laid down, and two ships (each with 3 masts) under full sail, are represented. This map is an imprint from wood cuts, and very well done. In the book of EZEKIEL, written about 600 years before the advent of the SAVIOUR, the ships used by the merchants of Tyre and Sidon are mentioned. He says:—

"They made all the boards of *firre* trees of Shenir; they have brought cedars from Lebanon to make masts for thee.

"Of the *oakes* of Bashan have they made thine *ores;* the company of the Assyrians have made thy banks of *yvory*, out of the *ystes* of Chittim.

"Fine linen with *broydered worke*, from Egypt, was spread over thee, to be thy *saile*, *blew* silk and purple, from the yles of Elisha, was thy covering.

"The inhabitants of *Zidon* and Amad were thy mariners, O *Tyrus:* the wise men that were in thee, they were thy pilots.

"The ancients of Gabal, and the wise men there of, were in thee thy calkers, all the ships of the sea were in thee to occupy thy merchandise.

"They of Tarshish thy *marchants* for the multitude of all riches, for silver, *yron*, *tinne*, and lead, they brought to thy *faires*.

"They of Iauan, Tubal, and Meshech were thy merchants, concerning the lives of men, and they brought vessels of *brasse* for thy marchandise.

"They of the house of Togarmach brought to thy *faires*, horses and horsemen, and mules.

"The men of Dedan thy *marchants:* and the *marchandise* of mine *yles* in thine hands: They brought thee for a present, *hornes*, teeth, and *peacockes*.

"They of Aram thy *marchants* for the multitude of thy wares: they occupied in thy *faires* with *emerandes*, purple, and *broydred-worke*, and fine linnen and *coralt* and *pearle*.

"They of Judah and of the land of Israel were thy *marchants:* they brought for thy marchandise *wheate* of Minnith and Pennag, and hony, and *oyle*, and *balme*.

"They of Damascus thy *marchants* in the multitude of thy wares, for the multitude of all riches, in the wine of Helbon and white *wooll*.

"They of Dan also and of Janam going to and fro, occupied in thy *faires: yron* worke, cassia, and callamus were among thy *marchandise*.

"They of Dedan thy *marchants* in precious *cloathes* for the charets.

"They of Arabia, and all the princes of Kedar, occupied with thee in *lambes*, and *rammes* and *goates:* in these were thy *marchants*.

"The *marchants* of Sheba and Raamah were thy *marchants:* they occupied in thy *fayres* with the *chiefe* of all spices, and with all precious stones and gold.

"They of Haram, and Carmeh and Eden, the *marchants* of Sheba, Ashur Chilmad thy *merchants*.

"These were thy *marchants* in all sorts, in *rayment* of *blew silke*, and of *broydered worke*, and in coffers for the rich apparell, which were *bounde* with *coardes: chaines* also among thy merchandise."

But for the great length of this communication, I would add the account of PAUL'S voyage, by ship, from Adramytnium to Italie. The ship visited Sidon, where PAUL went on shore to be refreshed by his friends.

The ship was wrecked, but all reached the shore in safety, and PAUL says:—"And the Barbarians shewed us no little *kindnesse*, for they kindled a fire, and received us every one, because of the *showre*, and because of the cold."

The remembrance of those who were the friends of PAUL at Sidon, although a period of more than eighteen hundred years have passed and gone, is thus made new, and those who have been enriched by the best of hopes through the sufferings of PAUL and his co-workers, should now in kindness and in charity remember the descendants of the friends of PAUL at Sidon, who are in great tribulation.

Syria cries for help to those who have been enriched by commerce.

BOSTON IN 1860.

The Boston *Herald* thus records some of the changes in that growing city:—

Were an individual to visit our city to-day, after an absence of five years, he would hardly credit the evidences of his senses, as he walked or rode about the streets which were once familiar to him, so extensive has been the change in this

short period. Indeed, so many old buildings have been demolished and so many new ones built, that one who has been a constant resident can hardly realize the change, and unless he has been a frequent visitor to different portions of the city, he will have no idea of the rapid extension of the metropolis, particularly that part of it known as the "South End." Where within a few years the view of the adjacent cities and town was entirely unobstructed, it has been cut off by new buildings erected upon lands which were once considered useless and valueless. So large is the number of these, that it seems almost as if a new city had been added to what was formerly the little city of Boston. The little peninsula has been transformed, and what used to be properly termed the "Neck," has been extended in such a manner that a long walk is necessary to go from one side to the other, and the extensive area which has been created from the marshes, which the tide once covered, now bears upon its surface the splendid homes of many of the wealthy men of the city. Care has been taken in laying out this extensive territory, and the broad streets and avenues and the beautiful parks which have been reserved for the common use, give evidence that the experience of the past has not been without its lesson. Building is still going on here, and is likely to continue for an indefinite period, and future dwellings are daily being prepared for the population which is rapidly wending its way up town, and leaving the old down town houses to be converted to the purposes of trade. Perhaps there is hardly another city in the Union where such an opportunity is afforded for extension in every direction as in Boston, and now that the southerly portion has been pretty well built over, we see the tide of building turned in a westerly direction. The Commonwealth lands and those of the Water Power Company are fast coming into market; indeed, large portions of them have already been sold, and buyers are waiting for further investments. Some buildings have already been erected, which in size and architectural design will be worthy of the section, which we hope will be made the model section of Boston. There is ample time, opportunity, and room for improving upon all that is good here, and for adopting whatever may be grand and elegant in architecture elsewhere. We believe it is the intention of those who are already owners in this section, and of those who propose to invest, to make the new section a source of pride to the city and a monument to the enterprise and taste of Boston merchants. We like the suggestion made in the columns of a cotemporary, recently, that a wide avenue should be laid out parallel to the Commonwealth-avenue, which may be devoted to the purposes of trade, like Broadway in New York, that the stores to be built should have a front of uniform height and design, and that the material should be of stone or iron. This avenue might commence at the end of Boylston-street and extend in time to Brighton. It could be made of any width required, and Boston would have one of the finest thoroughfares in the world. There is nothing to hinder this project, if it is considered in season. There will certainly be, before many years have passed, an immense population in this part of the city, and such an avenue will be needed. The experience of the last twenty-five years has proved how rapid and how profitable the extension of Boston may be, and how unfounded were the fears of the overprudent with regard to what were considered rash investments. Boston is bound to grow more rapidly in the future than in the past, and those who are to come after us will never forgive the blunder which would deprive them of a magnificent street. We should not be surprised if the intentions of those who can control this matter, are such as will furnish the proposed avenue, but we have had some fears lest the land should be so arranged for elegant residences, that this idea of a grand thoroughfare would be overlooked. If the time is not now at hand for such a movement, it will certainly come before many years, and the importance of the present opportunity should not be lightly estimated. We desire to see this vast area covered over with stores and mansions, which we as Bostonians may point to with pride, and which shall afford us the opportunity to compare our city with others in this country without feeling that they surpass us in any respect, so far as the elegance of our buildings and the general width and extent of our streets are concerned.

INCREASE OF AMERICAN COMMERCE.

The Baltimore *Price Current* contains the following interesting remarks:—

The progress of affairs in the Asiatic seas is of such a nature as to open there a broad field for the employment of American shipping. It has always been the case, that when American shipping came in competition with that of other countries, on the same footing, it has occupied the whole ground; and in the ports of Asia it has a field for operations of the most favorable description. Our minister at Pekin has succeeded in breaking down those time-observed dogmas of exclusiveness which the Chinese had adopted for their mode of action, and opened our resources of commerce to a race numbering one-fourth of the human species; which affords the most favorable augury for the future of American interests, as connected with that empire, which are now in a position that, if properly treated, cannot but result in conferring upon our shipping and national interests a high degree of prosperity. As a favored nation in Chinese ports, the great and growing carrying trade between British India and China, as well as the isles of the ocean, must fall to its share. A political position so favorable, supported by the great and well-known advantages which American vessels possess in build and sailing qualities, will give us the trade of 600,000,000 of people. The facilities of California for ship-building, when more fully developed, will be found well nigh inexhaustible, and the increasing population of that coast are already making them available. The American shipping interest on the Pacific coast is doubtless destined to exceed that of any other, not only by reason of the carrying trade which Australia, China, Japan, India, the Amoor River, and South America offer to American bottoms, but in the outlets which railroads across the country to the Atlantic States will promote. Again; ere long we shall have the telegraph from Russia by the Amoor and Behrings Straits, which will connect with the American line in Oregon. The connection of such means of prompt communication, showing the state of the markets at almost all parts of the world at once, must give a new impulse to operations of shipping; and American genius may, from San Francisco as a central point, command the whole carrying trade of those countries that border on the Pacific Ocean, and which produce those raw materials that are so rapidly becoming the medium of exchange between the countries of Europe. It will be a long time before those countries can find a home market for their vast productions. Every movement thus far towards the improvement of India, the opening of China and Japan, has tended to a large demand for goods in that region, and a more extensive export, not only to Europe, but between the countries of Asia. The extent to which our commerce may be pushed, the amount of tonnage that may be advantageously employed, and the number of seamen that will be required to carry on this vast commerce successfully, can hardly be estimated. Now, the importance of efficiency on the part of those officers and seamen who are entrusted with valuable ships and cargoes, and still more valuable lives, must be apparent to all, and there appears to be no more effectual means of securing that efficiency than the hearty co-operation of our merchants, ship-owners, and underwriters, in the maintenance of nautical schools, and the establishment of an examination system, whereby the real merits of each commander and officer may be known. The moral force of such a system will soon overcome the reluctance that may be expected to exist on the part of commanders and officers to pass the ordeal, and would gradually, but most assuredly, produce a body of well-educated seamen, efficient officers, and able commanders in our mercantile marine, and thus reduce the number of shipwrecks and marine disasters, rendering life and property more safe at sea.

We venture these remarks, hoping that they will be attended with due effect in awakening a desire for improvement and efficiency on the part of those who are desirous of becoming commanders or officers in our rapidly increasing mercantile marine, and to induce a respectable class of American youth to join the sea service, both of which are essential to our commercial prosperity.

THE BOOK TRADE.

1.—*The Works of Charles Lamb.* In four volumes. New Edition. Boston: Crosby, Nichols, Lee & Co.

These four elegant volumes, which are all that could be desired in way of typographical art, comprise the complete literary remains of CHARLES LAMB, the eminent essayist, satirist, and critic The first two volumes contain the letters of CHALES LAMB, together with Sir THOMAS TALFOURD'S sketch of his life. The third volume comprises LAMB'S "Essay of Elia," and the fourth his miscellaneous articles in prose and verse. There is always something fresh and novel pervading the writings of this eccentric man, read them so often as we may; a simplicity and yet a nicety of discrimination which is life like and conveys a profound knowledge of human nature Take, for instance, his satire of a "Poor Relation," and we find something both pungent and critical. "A poor relation is the most irrelevant thing in nature—a piece of impertinent correspondency—an odious approximation—a preposterous shadow, lengthening in the noon-tide of our prosperity—an unwelcome remembrancer—a perpetually recurring mortification—a mote in your eye—a triumph to your enemy, an apology to your friends—the one thing *not* needful—the hail in harvest—the ounce of sour in a pound of sweet. He is known by his knock. Your heart telleth you, 'That is Mr. ——.' A rap between familiarity and respect, that demands, and at the same time seems to despair of, entertainment. He entereth smiling, and—embarrassed. He holdeth out his hand to you to shake, and—draweth it back again. He casually looketh in about dinner-time—when the table is full. He offereth to go away, seeing you have company—but is induced to stay. He filleth a chair, and your visitor's two children are accommodated at a side table. He never cometh upon open days, when your wife says with some complacency, 'My dear, perhaps Mr. —— will drop in to day.' He remembereth birth-days —and professeth he is fortunate to have stumbled upon one. He declareth against fish, the turbot being small—yet suffereth himself to be importuned into a slice against his first resolution. He sticketh by the port, yet will be prevailed upon to empty the remaining glass of claret if a stranger press it upon him. He is a puzzle to the servants, who are fearful of being too obsequious, or not civil enough to him. The guests think they have seen him before. Every one speculateth upon his condition, and the most part take him to be a tide waiter. He calleth you by your Christian name, to imply that his other is the same with your own. He is too familiar by half, yet you wish he had less diffidence. With half the familiarity, he might pass for a casual dependent; with more boldness, he would be in no danger of being taken for what he is. He is too humble for a friend; yet taketh on him more state than befits a client. He is a worse guest than a country tenant, inasmuch as he bringeth up no rent—yet 'tis odd, from his garb and demeanor, that your guests take him for one. He recollects your grandfather, and will thrust in some mean and unimportant anecdote of the family. He knew it when it was not quite so flourishing as 'he is blest in seeing it now?' He reviveth past situations, to institute what he calleth—*favorable comparisons.* With a reflecting sort of congratulation he will inquire the price of your furniture, and insults you with a special commendation of your window curtains. He is of opinion that the urn is the elegant shape, but after all, there was something more comfortable about the old tea-kettle—which you must remember. He dare say you must find a great convenience in having a carriage of your own, and appealeth to your lady if it is not so. His memory is unseasonable; his compliments perverse; his talk a trouble; his stay pertinacious; and when he goeth away, you dismiss his chair into a corner, as precipitately as possible, and feel fairly rid of two nuisances."

2.—*Steam for the Million.* A Popular Treatise on Steam, and its Application to the Useful Arts, especially to Navigation. Intended as an Instructor for Young Seamen, Mechanics' Apprentices, Academic Students, Passengers in Mail-steamers, etc. By J. H. WARD, Commander U. S. Navy. Author of "Naval Tactics," etc., etc. New and Revised Edition. 8vo., pp. 120. New York: D. Van Nostrand.

Commander WARD is fortunate in having filled a void long felt, with a work on "Steam for the Million." The universal application of steam to all the highways and byways of commerce requires of every one who pretends to a useful education an intelligent appreciation of *the power*, par excellence, which moves with the genius of the age. The principles of the application of steam are now required of a useful clerk, no less than of a mechanics' apprentice; and a *seaman*(?) without this knowledge only seeks subordinate employment. And tot the traveling public, daily experience testifies to the importance of an educated judgment in the application of steam. The book before us is emphatically one that "he who *travels* may read," and gain knowledge of the power which impels him. Divested of all useless technicalities, it abounds in practical matter of interest to every one, no matter what his sphere. And no one can read it without becoming convinced that it contains much valuable instruction, and is the work of an experienced utilitarian. All the more important problems on the practical application of steam are here brought together in a concise monograph, equally useful to the student beginning this study, and to the engineer who has but leisure to refresh his memory; as it contains all that it is important to know, without special details. It is well illustrated by numerous wood cuts.

3.—*The Housekeepers' Encyclopedia of Useful Information for the Housekeeper in all branches of Cooking and Domestic Economy;* containing the first scientific and reliable rules for putting up all kinds of hermetically sealed Fruits, with or without sugar, in tin cans or common bottles; also rules for preserving Fruits in American and French styles; with tried receipts for making domestic Wines, Catsups, Syrups, Cordials, etc.; and pratical directions for the cultivation of Vegetables, Fruits, and Flowers, destruction of Insects, etc., etc. By Mrs. E. F. Haskell. 12mo., pp. 445. New York: D. Appleton & Co.

The author has endeavored to make this work a complete encyclopedia for the housekeeper, going minutely into many things which, to an experienced person, may seem superfluous, but which are all in themselves useful. It is decidedly American in its rulings, and, to our mind, the best book of the kind published in the country.

4.—*Odd people;* being a popular description of Singular Races of Men. By CAPTAIN MAYNE REID, author of the "Desert Home," "The Bush Boys," &c. With illustrations. 12mo., pp. 461. Boston: Ticknor & Fields.

This volume will be found to contain interesting accounts of different singular races of men spoken of by travelers in different parts of the world. Captain REID's genius as a narrator is well established, hence the accounts given here are from the best authority and prepared with much care, giving descriptions of the different curious races, how they exist, customs, appearance, etc., without romancing, in a clear and straightforward style. To a young lady its value will rate as so much gold.

5.—*Greek Grammar*, for the use of Schools and Colleges. By JAMES HADLEY, Professor in Yale College. 12mo., pp. 366. New York: D. Appleton & Co.